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Infant Mortality and Health in Latin America:

An Annotated Bibliography From the 1979-82 Literature

(Includes Spanish, Portuguese, and French Entries)

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Infant Mortality and Health in Latin America:

An Annotated Bibliography From the 1979-82 Literature

(Includes Spanish, Portuguese, and French Entries)

Compiler: Mark Farren

ABSTRACT

During the 1960s and 1970s, mortality was a relatively neglected area of research in Latin America and other developing countries. Recent slowdowns in mortality decline in these countries, while mortality levels remain unacceptably high, have spurred a renewed interest in studying mortality levels, trends, and differentials, and their socioeconomic, cultural, and environmental determinants. The emerging research interests underline the need for more adequate conceptual frameworks and the incorporation of new variables such as nutrition, morbidity, and disease treatment strategies into research design. This bibliography attempts to systematize and facilitate access to the growing body of literature on this subject.

RÉSUMÉ

Durant les années 60 et 70, la mortalité a été un sujet de recherche plutôt négligé en Amérique latine et dans d'autres pays en développement. Le récent ralentissement de la baisse de la mortalité dans ces pays, où par ailleurs les taux de mortalité sont encore trop élevés, a suscité un regain d'intérêt pour l'étude de la mortalité : ses niveaux, ses tendances, ses différences et ses déterminants socio-économiques, culturels et environnementaux. Aujourd'hui, les chercheurs qui se penchent sur le sujet, soulignent la nécessité de donner à la recherche un meilleur cadre théorique et d'y incorporer des variables comme la nutrition, la morbidité et les stratégies de traitement des maladies. Cette bibliographie tente de systématiser et de faciliter l'accès à la littérature toujours plus importante sur le sujet de la mortalité.

RESUMEN

Durante los años 1960 y 1970, la mortalidad era un área relativamente descuidada de la investigación, tanto en América Latina como en otros países en desarrollo. Las recientes bajas de la mortalidad en estos países, si bien las tasas de mortalidad siguen siendo inaceptablemente altas, han dado nueva vida al interés por estudiar las tasas de mortalidad, tendencias y diferenciales, y sus determinantes socioeconómicos, culturales, y ambientales. El interés que está apareciendo por esta investigación subraya la necesidad de marcos conceptuales más adecuados y la incorporación dentro del diseño de la investigación de nuevas variables tales como nutrición, morbilidad, y estrategias de tratamiento de enfermedades. Esta bibliografía trata de sistematizar y facilitar el acceso a la creciente literatura sobre este tema.

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FOREWORD

Infant mortality research in Latin America has made important and rapid strides forward in the past decade. This has been possible due to the increasing availability of data from national censuses and demographic and household surveys, and the development and application of indirect measurement techniques. Most Latin American countries now have reasonably reliable estimates of levels and trends of infant mortality, and many have further information on regional and socioeconomic differentials. In this respect, considerable credit is due to the coordinating efforts of CELADE, the United Nations Regional Demographic Centre in Santiago, Chile.

During the 1960s and 1970s mortality was a relatively neglected area of demographic research in developing countries. The recent slowdowns in mortality declines in these countries at a moment when mortality levels are still unacceptably high have been accompanied by a renewed interest in conducting research in this area. Research focus is gradually shifting from the measurement of mortality toward studies that address the explanatory aspects and the development policy implications of high mortality levels and large socioeconomic mortality differentials. At the same time there is a growing consensus toward the consideration of infant mortality as the end point of a continuum having good health as its extreme counterpart and deteriorating ill health as its antecedent.

These emerging research interests have underlined the need for the development of more adequate conceptual frameworks and the incorporation of new variables such as nutrition, morbidity, disease treatment, and environmental contamination into research design. The realization of these research objectives will require exposure to and the creative fusing of methodologies and perspectives from different disciplines and research traditions.

It is intended that this bibliography will provide researchers and policymakers with an update as to the present approaches and trends toward infant mortality research in Latin America and provide some foundation and encouragement for future research conducted in this area.

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INTRODUCTION

The general objective of this bibliography is to systematize and facilitate access to the growing and diversified body of literature touching on the subject of infant mortality and health in Latin America.

Although the range of items in this bibliography is relatively extensive, the materials included cannot claim to be exhaustive. During the earlier stages of compilation the primary focus of materials search was on infant mortality per se. As the compilation procedure progressed the focus expanded to include morbidity and health and an increasing number of intermediate mortality variables. This underlines the need for future efforts in this direction to benefit from complementary inputs especially from the areas of health and nutrition sciences.

To limit the size of the bibliography and to concentrate on most recent developments, with few exceptions, sources cited in this document refer to the publication period 1979-82. The geographic coverage is primarily Latin America. However, additional references have been included for other continents and particularly for countries where there has been an important decline in mortality, or where there have been innovative experiments in data collection, concerning such regions as Kerala State (India) and Sri Lanka, and health monitoring, in the case of Bangladesh.

A variety of sources have been consulted in the compilation of this bibliography and considerable supplementary documentation has been obtained through correspondence with Latin American researchers and institutions. However, references are included only where the original document and annotation were available or where an annotation was prepared by the compiler before the closing date for entry of bibliographic items.

The annotation procedure for the bibliography is not uniform nor is the language of annotation. The guiding principles in this respect have been the following. Where a specific reference contained its own annotation or summary this was generally incorporated without editing into the bibliography. The major exception to this principle was that, where applicable, preference was given to summaries published in the journal DOCPAL.[1] The DOCPAL summaries have the advantage of being very detailed and written in Spanish. Where no acceptable abstract was available, either from the author or in bibliographic sources, one was prepared by the compiler.

As to the language composition of the annotations, the key consideration was that these should be in the language of the original document. There are, therefore, bibliographic entries in four languages: English, French, Portuguese, and Spanish. The few exceptions to this general rule refer to annotations that appear in English or Spanish based on original documents written in languages other than these. The bulk of entries are in English or Spanish.

Both a subject and geographic index are provided. The subject index contains 42 subcategories. These subject breakdowns are, of course, neither exhaustive nor always mutually exclusive with respect to individual entries. For the geographic index, where applicable, provision is made for entries pertaining to individual Latin American countries, for Latin America globally, and for other continents.

Because the bibliographic entries are ordered alphabetically by author there is no author index. Subject and geographic indexes refer to entries classified by the author and year of publication. This indexing procedure offers the advantage of rapidly identifying to the reader key authors and sources for specific subject and geographic areas. Where specific authors have more than one entry for a given year, the entries in question are distinguished by the addition of an alphabetic character (e.g., Arriaga 1981a).

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[1] DOCPAL is the Latin American Population Documentation System at CELADE. DOCPAL publishes a biannual journal of summaries of recent literature dealing with population and related topics that are produced in Latin America and the Caribbean.

In the preparation of this bibliography it is necessary to acknowledge the contribution of CELADE in providing, through its DOCPAL search facilities, access to their inventory of bibliographic references in this subject area. Thanks are also due to individual researchers for sending copies of their material and recommending additional sources.

Finally, it is important to recognize that bibliographies are always incomplete and rapidly out of date. Corrections and new contributions applying to this bibliography as well as any suggestions for enhancing its use are warmly welcomed.

ABBREVIATIONS AND ACRONYMS

Some abbreviations in the bibliography refer to the sources of annotation. Where the author of a given item has prepared the abstract this is succeeded by "AU." Those abstracts coming from the CELADE DOCPAL program are so indicated, and "PI" refers to Population Index. Where the compiler has prepared the abstract this is indicated by the initials "MF." Other abbreviations are as follows:

IUSSP: International Union for the Scientific Study of Population

OECD: Organization for Economic Co-operation and Development

PAA: Population Association of America

UN: United Nations

UNICEF: United Nations Children's Fund

WHO: World Health Organization

BIBLIOGRAPHY

1 **Accinelli, M., y Müller, M.,** 1980, "Un hecho inquietante: la evolución reciente de la mortalidad en la Argentina", Cuadernos de CENEP, No. 17, Buenos Aires, 25 pp.

Se analizan las condiciones actuales de mortalidad en Argentina y se las compara con aquellas de otros países en diversas etapas de desarrollo. Los autores indican que el descenso de la mortalidad, que habría persistido desde finales del siglo XIX, se acabó durante la década 1960-1970. En base a datos argentinos y de otros países en desarrollo las autoras cuestionan la hipótesis según la cual la duración de la vida humana continuará a aumentar hasta que llegue a niveles similares a aquéllos actualmente observados en países más desarrollados. (MF)

2 **Adamchak, D., and Flint, W.,** 1980, "A note on percent neonatal-postneonatal mortality vs. infant mortality rates as correlates of socioeconomic development," Population Review, La Jolla, Calif., Vol. 24, Nos. 1-2, Jan.-Dec., pp. 37-40.

This paper compares percentage neonatal-postneonatal mortality and infant mortality rates as indicators of socioeconomic development for differentiating broad groups of nations. The data are taken from 26 nations for the year circa 1972. The results lend support to the notion that percentage neonatal-postneonatal mortality better serves to discriminate nations in their level of socioeconomic development. (PI)

3 **Allman, J., and Rohde, J.,** 1981, "Infant mortality in relation to the level of fertility control

practice in developing countries," Solicited paper, IUSSP International Conference, Manila, Vol. 2, pp. 93-112.

Conclusions:

(a) Family planning does contribute to lowering infant mortality rates (IMR) in both developing and developed countries. As Puffer and Serrano note "to ensure survival of children from the hazards of the infant period, planning for pregnancies which are desired by the parents and which will result in healthy infants is the first essential."

(b) The effects of family planning are probably greatest when other means of reducing infant mortality are introduced concomitantly.

(c) The magnitude of the effect of family planning on the IMR estimated from simplistic models does give some indication of the importance of the relationship. But the process is so complex and related to multiple determinants that it cannot be satisfactorily quantified.

(d) Careful studies of the levels and determinants of infant and child mortality are needed to identify the most effective strategies for both mortality and fertility reduction.

Thus, the entire relationship between fertility and infant mortality is both complex and, to a large degree, unpredictable. While an association between the two is often but not invariably apparent, causality is surely not proven. The support of fertility control and mortality reduction measures should be justified on the merits of each rather than attributing any strong influence of one over the other. (AU)

4 **Antonovsky A.,** 1980, "Implications of socio-economic differentials in mortality for the health system," Population Bulletin of the United Nations, No. 13, pp. 42-52.

The paper starts from the premise that a systematic, continuous monitoring system is needed to assemble data on the social indicator "socio-economic differentials in mortality." Five particular types of data are noted: secular trends, class differentials and age, linearity versus dichotomy, cross-cutting variables, and downward mobility and biological selection.

Two fundamental questions are then discussed: (a) Does the health care system really have any relevance to mortality differentials? (b) Can a health care system have any degree of meaningful autonomy from the overall social system? These questions are both answered with a cautious, qualified "yes."

The policy implications of the foregoing analysis are examined in terms of the value content of medical education, the organization of the health care system, the emphasis on health, and the focus on the community, and implications for resource allocation. In the final section, the concepts of control and power are analyzed as the key to socioeconomic differentials. The emphasis on differential exposure to "stressors" is rejected in favour of what is called "a sense of coherence," a global orientation which emerges (or, among lower classes, does not emerge) against the background of a high level of generalized resistance resources. The fundamental problem, then, is that the constricted, emergency, powerless, and unpredictable character of lower social class existence prevents lower-class persons and groups from being able to cope with stressors. The final issue posed is: How can the health care system strengthen the sense of coherence of the lower classes? (AU)

5 **Arriaga,** E., 1982, "The deceleration of the decline in mortality: where and why?," paper presented to PAA session, "World trends in mortality," San Diego, April.

Most developing countries registered a slowing down of mortality decline between 1960 and 1970 in relation to the previous decade. However, it is almost impossible to generalize the reasons for such a slowdown when analyzing life expectancies at birth, because the analysis needs to be made not only by age and sex but also by cause of death. The rapid decline of mortality experienced during the 1940s and 1950s in most countries should be taken as an exceptional and unique decline for reasons already analyzed in other studies. After 1960, there is a diversity of patterns of decline in each country.

An analysis by age is presented indicating that if only ages 0-65 years are considered, then the slowing down of mortality was restricted to two-thirds of all countries studied. But because the decline of mortality at ages 0-4 years has a large impact on life expectancy, if the analysis is confined to ages 5-65 years, all countries but one suffered a slowdown of mortality decline. The analysis suggests that further mortality decline will have to be based mainly on a continuing program for reducing diseases of the respiratory system and infectious and parasitic diseases, because it would be difficult to reduce deaths from accidents and violence, degenerative diseases, and diseases related to the circulatory system. (AU)

6 **Arriaga, E.,** 1981a, "The deceleration of the decline of mortality in the LDCs: the case of Latin America," solicited paper, IUSSP International Population Conference, Manila, Vol. 2, pp. 21-50.

Mortality decline has been slow in the 1960s when compared to the experience of the previous decade. It is virtually impossible to generalize however as to the reasons for this slow decline, and any analysis in this respect must incorporate a disaggregation by age and sex variables. The rapid mortality decline of the 1940s and 1950s was unique and exceptional for reasons already documented in other studies. Subsequent to 1960 there is a diversity of patterns of mortality decline in Latin America. Further declines in mortality will have to be based not only on a continued program for decreasing diseases of the respiratory system and infections and parasitic diseases but also and especially on programs for reducing deaths from accidents and violence, degenerative diseases, and diseases related to the circulatory system.

Mortality trends in Latin America appear paradoxical; the rate of decline has slowed down with development. This finding should probably be expected however. First, the "easy" reduction of mortality in most countries has been achieved, so that adult populations are now dying of causes that will require more costly programs - safety systems in factories, enforcement of automotive traffic laws, better equipment for early detection and control of degenerative diseases, better facilities for treating patients with circulatory system problems, and the importance of ensuring access to such facilities to the majority of the population. Second, there remains a substantial proportion of deaths due to "easily eliminated" diseases. To achieve these goals, however, development - including higher nutritional intakes - must reach the entire population of each country including rural areas and poorer sectors of large cities. (MF)

7 **Arriaga, E.,** 1981b, "Direct estimates of infant mortality differentials from birth histories," U.S. Bureau of the Census, World Fertility Survey Conference, 7-11 July, London, England, mimeo, 32 pp.

The main purpose of this paper is to analyze infant mortality differentials. Rates are estimated for subgroups of women classified by: (a) age of mother at the time of the survey; (b) urban and rural residence; (c) level of educational attainment. The relationship between infant mortality and fertility is also explored. Data are for nine Asian and Latin American countries that participated in the World Fertility Survey. The author suggests that it is possible to use these data to identify specific social groups that experience higher levels of infant mortality and that this is a necessary first step in the development of effective policies to reduce infant mortality. (PI)

8 **Arriaga, E.,** 1980, "Infant and child mortality in Less Developed Countries," paper presented at the 1980 PAA Meeting, Denver, Colorado.

Most LDCs still have high infant mortality. However, some of them have achieved low levels of infant mortality which would indicate possibilities of reducing mortality without substantial industrialization. The information from censuses and surveys during the 1970s indicates that within each country there are large infant mortality differentials. While there are particular social groups approaching rather low infant mortality, others have remained with high levels. The differentials analyzed in this paper relate to rural-urban areas, age of mothers, and education of mothers. Special references are made to neonatal and postneonatal mortality. The largest mortality differentials are related to education of the mother. The author concludes that investigations should be conducted to establish which aspects of the educated mothers are related to infant mortality so that this information can be used to design policies for reducing mortality in the first year of life. (AU)

9 **Arriaga, E.,** 1979, "An overview of the main survey systems and other procedures for collecting mortality information," paper presented to the Group Meeting on Methodology of Mortality Measurement, London, October, 27 pp.

The purpose of this paper is to present a brief overview of the different approaches most frequently used to collect mortality information. The paper first presents the survey approaches (single-round survey, multi-round survey, and dual-collection systems) frequently used for the main purpose of collecting information to measure the level of mortality. A brief section follows on the approaches used for detecting mortality differentials. Finally, there is a short discussion of questionnaires used in mortality surveys. (AU)

10 **Ashworth A.,** 1982, "International differences in infant mortality and the impact of malnutrition: a review." Human Nutrition: Clinical Nutrition, Vol. 36C, No. 1, pp. 7-23.

Levels of infant mortality in different countries around the world are compared, and the nature and magnitude of the main health problems in infancy are analyzed to identify those that are associated with malnutrition. Data are from published U.N. sources. (PI)

11 **Azefor, M.,** 1981, "Counteracting forces in the continued decline of mortality in Africa," solicited paper, IUSSP International Population Conference, Manila, Vol. 2, pp. 5-20.

In Part 1, the evidence suggesting that declines in mortality have occurred in Africa recently is examined and an attempt is made to assess the magnitude of such declines. In Part 2, the factors that counteract mortality declines in sub-Saharan Africa are considered. In the final part, future prospects concerning mortality trends in Africa are assessed and some priority areas for improving the quality of mortality data are identified. (PI)

12 **Baldión, E.,** 1981, "Colombia: aspectos sociodemográficos relevantes en el estudio de la mortalidad infantil y su asociación con la fecundidad", CELADE, Santiago. Serie D, No. 102, marzo, 60 pp.

El estudio de los aspectos socio-demográficos relevantes de la mortalidad infantil y su asociación con la fecundidad en Colombia forma parte de los trabajos del Seminario de Análisis y Capacitación con datos de la Encuesta Mundial de Fecundidad, y tiene como base empírica una muestra de 9793 hogares y 5685 mujeres en edad fértil (1976) (p. 6). Previo al desarrollo del marco teórico del estudio se examinan: a) los factores demográficos y biológicos, socioeconómicos y ambientales determinantes de la mortalidad infantil; b) la mortalidad infantil en relación con el nivel de fecundidad con énfasis en la existencia o no de una asociación entre ambos fenómenos, la magnitud de la misma - si es que la hay - y su efecto sobre los niveles globales de fecundidad. (DOCPAL)

13 **Banguero, H.,** 1979, "El impacto de diferentes causas de muerte sobre la esperanza de vida

promedio en Colombia; una metodología para calcular tablas de vida de riesgo competitivo" en: Méndez, R., y Banguero, H., 1979, Dos ensayos sobre demografía colombiana, Universidad de Los Andes, Centro de Estudios sobre Desarrollo Económico, pp. 1-38.

La metodología propuesta para estimar el impacto de causas específicas de muerte en la esperanza de vida promedio, se basa en la construcción de tablas de riesgo competitivo y permite considerar hasta 150 causas. Tiene como base empírica ilustrativa el censo de población de Colombia de 1973 y contempla los siguientes pasos: a) información sobre las defunciones por edad y causa para uno o varios años alrededor de un año censal; b) ajuste de la matriz promedio de defunciones por causa y edad desconocidas; c) ajuste por subregistro; d) división del número de defunciones ajustadas por la población según edades específicas; e) obtención de la tabla de vida para toda la población y todas las causas; f) cálculo de la probabilidad de morir cuando se elimina una causa dada: g) utilización de los vectores de probabilidad de morir como datos de entrada para recalcular las tablas de vida cuando la causa ha sido eliminada. (DOCPAL)

Este documento también incorpora un programa de computador para calcular tablas de riesgo competitivo, escrito en Fortran IV, que permite considerar hasta 150 causas de muerte específicas en base a tablas de vida abreviadas hasta los 80 años de edad. (MF)

14 **Banister, J., and Preston, S.,** 1981, "Mortality in China," Population and Development Review, Vol. 7, No. 1, March, pp. 98-110.

Newly released data from a 1975 large-scale survey in China, the Cancer Epidemiology Survey, are analyzed to give estimates of China's level and age pattern of mortality. The survey recorded registered deaths by age for 1972-75 and the 1974 registered population age distribution for a nationwide sample of production teams. The data are adjusted for completeness of death registration (estimated to be 80-90%) using a variety of

recently developed techniques, and checks are made of the plausibility of the mortality age pattern by comparison with other Asian country experience. The findings are that expectation of life at birth in China in 1972-75 was 62-64 years, the crude death rate 8-9/1,000, and the infant mortality rate 53-63/1,000. A "best guess" life table for the period 1972-75 is presented. (AU)

15 **Barnum, H., Barlow, R., Farjado, L., Pradilla, A.,** 1980, A resource allocation model for child survival, Cambridge, Mass., Oelgeschlager, Gunn and Hain, XVIII, 190 pp.

Develops a mathematical optimization model designed to provide policymakers (in LDCs) with an analytical framework to facilitate efficient allocation of resources to programs intended to decrease the rate of child mortality. (PI)

16 **Baum, S., and Arriaga E.,** 1981. "Levels, trends, differentials, and causes of infant and early childhood mortality in Latin America," World Health Statistics Quarterly, Geneva, 34(3) pp. 147-167.

Levels, trends, differentials, and causes of infant and early childhood mortality in Latin America for the period 1950-70 are reviewed in an attempt to determine whether the rapid decline in mortality experienced in most Latin American countries from 1930 to 1960 has continued. Country variations in infant and child mortality are analyzed according to urban or rural area, educational level of mother, and groups of causes of death. Data are for 17 Latin American countries that have acceptable vital statistics registers or estimated rates. (PI)

17 **Bayona, A.,** 1980, "La relación mortalidad en la niñez-fecundidad y factores contextuales intervinientes - un análisis de rutas causales", Estudios de Población, Vol.5, No. 7, julio-diciembre, pp. 31-49.

La relación entre la fecundidad y la mortalidad en la niñez se examina en el contexto de las condiciones sociales y económicas de las familias y la comunidad, precisando el impacto neto del descenso de la mortalidad en la fecundidad y estudiando la relación entre factores contextuales y comportamiento demográfico. La aplicación del modelo de rutas causales en la determinación de las variables consideradas, utiliza como técnica el análisis de trayectoria y tiene como base empírica una submuestra del censo de 1973 de Colombia. Los resultados indican que: a) el efecto de reemplazo, postulado en la hipótesis del hijo sobreviviente, opera en forma fuerte con una proporción que fluctúa entre 0.2 y 0.5 (p.42), sin que se observen diferencias significativas entre cohortes. En términos globales, algo más del 20% de la varianza en la fecundidad se explica por las variables de la mortalidad en la niñez (p.48); b) no hay una asociación lineal directa entre estado de desarrollo y defunciones de los menores, y el efecto indirecto de aquél vía las condiciones de vida es débil y no alcanza a explicar el 4% de la varianza (p.45). Ello indica que la mortalidad es cada vez más independiente del desarrollo y más de programas de salud y atención médica, contradiciendo así una de las hipótesis centrales de la modernización. (DOPCAL)

18 **Bayona, A., y Ruiz, M.**, 1982, La mortalidad en Colombia: 1970-1982, Volumen I, Ministerio de Salud, Bogotá, Colombia, 94 pp.

Se evalúa la calidad de datos provenientes de los registros de defunciones de Colombia para el período 1970-1977. Se identifican el grado y la naturaleza del subregistro para departamentos individuales. Se ajustan los datos para estimar el nivel y la estructura de la mortalidad para los años 1973, 1975 y 1977, según sexo, edad y causa de muerte, y se hacen proyecciones para el año 1982. Se proporcionan cuadros y gráficos para regiones del país consignando las defunciones según el mes de inscripción y estimaciones ajustadas de defunción por edad. (MF)

19 **Behm, H.**, 1982, "Final report on the research project on infant and child mortality in the Third

World," Committee for International Cooperation in National Research in Demography (CICRED), July, 37 pp.

This report summarizes and comments upon the most significant aspects of the papers contributed to the CICRED project for coordinated research on infant and child mortality in the Third World and the Concluding Meeting for this project held in Manila in December 1981. It contains sections on data sources for mortality studies, estimation procedures, mortality levels, trends and differentials, causes of death, the relationship between infant mortality and fertility, theoretical frameworks of analysis for mortality study, and the analysis of the determinants of mortality. A brief analysis of the CICRED project is included. (MF)

20 **Behm, H.**, 1981, "Mortalidad en América Central: realidad actual y perspectivas", presentado durante el taller "Cambio social y población en América Central", e el Simposio "América Central frente a la década de los '80". octubre, 34 pp.

Este artículo analiza, con la información demográfica más reciente, la situación actual de la mortalidad en América Central y discute los factores que definen su posible curso futuro.

Indica que en cuanto a la mortalidad hay dos Centroaméricas diferentes - la Subregión Sur formada por Costa Rica y Panamá (con una esperanza de vida al nacer (e_0) de 70,8 años para 1980-85), y la Subregión Norte formada por Guatemala, El Salvador, Honduras y Nicaragua (con una e_0 de apenas 60 años).

El artículo subraya la importancia de los factores sociales en los diferenciales de mortalidad indicados. (MF)

21 **Behm, H.**, 1979a, "Demographic growth and health needs in Latin America," International Journal of Health Services, Vol. 9, No. 1, pp. 77-85.

The net effect of the rapid population growth in

Latin American countries is an increase in the needs for health services. Nevertheless, the demographic factor is not the only nor the most important consideration in determining how to satisfy these demands in the region. The main contradiction lies between the magnitude of needs for services generated by the adverse living conditions prevailing among the majority of the population, together with a restricted supply of health services, the availablity of which varies according to social class. The problem of the increasing demand for medical care, generated by the rapid population growth, should be recognized as originating in the socioeconomic structural conditions prevailing in Latin American countries today which determine simultaneously, low health levels, deficiencies in the provision of health services, and rapid population growth. (AU)

22 **Behm, H.,** 1979b, "Determinantes económicos y sociales de la mortalidad en América Latina", San José, CELADE, presentado en: N.U./O.M.S., "Reunión sobre determinantes socioeconómicos de la mortalidad y sus consecuencias", México, 19-25 junio, 44 pp.

Análisis del conocimiento que existe sobre las características y la génesis de los diferenciales socioeconómicos de la mortalidad en América Latina. El marco conceptual que se presenta como el más adecuado para abordar el problema de la mortalidad en la región, es aquél que considera que el fenómeno tiene una determinación social y debe ser estudiado en el contexto de una teoría social; es decir, se intenta articular lo biológico en un contexto social, en la tesis de que las causas sociales pueden desencadenar y transformar los factores biológicos. Dados los estilos de desarrollo que caracterizan a la mayoría de los países latinoamericanos, se estima que los factores socioeconómicos juegan un papel más importante en la génesis de la mortalidad, en especial en los primeros años de vida, vinculada a causas previsibles como desnutrición, diarrea y otras enfermedades infecciosas. En los países latinoamericanos donde el desarrollo capitalista ha sido precoz y más avanzado, la mortalidad es baja, comparada con otros países de la región donde predominan economías de subsistencia. Existen también diferencias regionales al interior de los países, así como entre las zonas urbanas y rurales; en dos tercios de 12 países latinoamericanos, existe un exceso de 30-60% del riesgo ,de morir en los dos primeros años de vida en las zonas rurales con respecto a las urbanas (p. 13). Se analiza la relación inversa que existe entre mortalidad e ingreso y entre mortalidad y educación. Se señala que los grupos con mayor riesgo de morir están formados por la clase trabajadora, y, en aquellos países donde son numéricamente importantes, por las poblaciones indígenas. (DOCPAL)

23 **Behm, H.,** 1979c, "Infant and child mortality in the Third World: background information and proposals for cooperative studies among demographic centers", San José, CELADE, paper presented to the "Inter-Centre Collaborative Research on Infant and Childhood Mortality in the Third World" Meeting, Chapel Hill, N.C., US, 3-6 September, 44 pp.

La "mortalidad infantil y juvenil en el Tercer Mundo" fue seleccionada por el CICRED como uno de los temas que merecen ser estudiados en forma cooperativa por los diversos centros de investigación sobre población. Se presenta un resumen sobre los siguientes aspectos que se consideran básicos para abordar el tema: 1) fuentes de datos y métodos de estimación; 2) principales características de la mortalidad infantil y juvenil en el Tercer Mundo; 3) estudios explicativos de la mortalidad infantil; 4) consecuencias del descenso de la mortalidad infantil sobre la fecundidad; 5) proposiciones para el programa cooperativo entre los centros de investigación. Con respecto a este ultimo punto, se sugiere ahondar en el estudio de los siguientes temas: a) la transición de la mortalidad en el Tercer Mundo desde una perspectiva comparativa que toma en cuenta las siguientes características de las poblaciones bajo estudio: etapa histórica del desarrollo socioeconómico, existencia de políticas sociales que afectan a la mortalidad, características culturales relevantes; b) evaluación de métodos de estimación indirectos, tales como los de Brass; c) causas de muerte; d) los efectos de programas de salud sobre la mortalidad; e) la experiencia de encuestas de mortalidad. Al final se presenta una extensa bibliografía sobre el tema. (DOCPAL)

24 **Behm, H., y Primante, D.,** 1979, Material de enseñanza sobre mortalidad, con especial referencia a la situación de América Latina, San José, CELADE, Serie E 1011, 70 pp.

A través de tablas y gráficos estadísticos se presenta material de enseñanza de mortalidad, con especial referencia a la situación de América Latina. El documento presenta un análisis comparativo de la mortalidad actual en países desarrollados y en el Tercer Mundo, y una visión panorámica del curso histórico de la mortalidad en países avanzados y en países latinoamericanos. (DOCPAL)

25 **Behm, H., y Primante, D.,** 1978, "Mortalidad en los primeros años de vida en la América Latina", Notas de Población, 6, (16), abril, pp. 23-44.

Este artículo presenta un resumen de los hallazgos de una serie de estudios sobre la mortalidad de los menores de dos años en 12 países latinoamericanos. El método de estimación fue el de Brass y, por la mayor parte, los censos nacionales respectivos constituyeron lafuente de datos. Los riesgos de mortalidad para los países en cuestión son altos y heterogéneos. La mortalidad más alta se encuentra en las regiones andinas y centroamericanas. En general, la mortalidad rural es mayor que la urbana. Los diferenciales de mortalidad más grandes se observan en función del nivel de instrucción de la madre. Agregando todos los países estudiados, se identifica una población de alta mortalidad (con tasas encima de 120 por mil nacidos vivos). En aquella población ocurren 50% de todos los nacimientos y 67% de todas las defunciones de menores de 2 años. Esta población se compone por la mayor parte de mujeres analfabetas (o poco alfabetizadas), viviendo en sectores rurales, e incluye todos los pueblos indígenas. Este población constituye el núcleo del problema de la alta mortalidad en Latinoamérica. Esta situación está determinada principalmente por condiciones estructurales e históricas que mantienen extensos sectores de la población en un medio físico, biológico, social y económico particularmente desfavorable para su sobrevivencia, y que impone restricciones severas a una mayor difusión del conocimiento médico existente para prevenir la enfermedad y la muerte innecesarias.

La serie completa de estudios hechos por Behm et al dentro del programa de CELADE "Investigación de la mortalidad infantil en América Latina" (IMIAL) incluye: Argentina 1966-67, Costa Rica 1968-69, Bolivia 1971-72, Chile 1965-66, Colombia 1968-69, Ecuador 1967-70, El Salvador 1966-67, Guatemala 1968-69, Honduras 1969-70, Nicaragua 1966-67, Paraguay 1967-68, Perú 1967-68, República Dominicana 1970-71; c.f. CELADE, Serie A, Nos. 1024-1032, 1036-1039. (MF)

26 **Behm, H., and Vallin, J.,** 1982, "Mortality differentials among human groups," in proceedings, IUSSP seminar, Biological and social aspects of mortality and length of life, Ordina Editions, Liège, pp. 11-37.

The authors review the dimensions of variation in estimated mortality levels among and within national population groups. Mortality differentials are examined by sex, marital status, place of residence, and social status, and references are provided to the major works on this subject. The developed and developing countries are considered separately. The importance of identifying the factors influencing mortality to develop public health measures is noted, as well as the value of examining naturally occurring mortality differentials for clues regarding underlying causal factors. (PI)

27 **Bennett, F.,** 1979, "Primary health care and developing countries," Social Sciences and Medicine, Vol. 13(a) pp. 505-514.

Primary Health Care (PHC) has been firmly established as the avenue which most developing countries will explore in the next 20 years in order to improve the quality of life and health of every individual in

every community. This commitment is largely the result of the Alma-Ata Conference which clarified many of the political, technical, social administrative, and educational aspects of Primary Health Care. This paper summarizes this process of consolidation of the concept, gives some examples of national plans, and then deals with types of support that facilitate community participation. Because PHC involves people rather than merely technology, the role of social scientists is one which needs greater emphasis. (AU)

28 **Berrebi, Z.M., and Silber, J.,** 1981, "Health and development: socio-economic determinants of mortality structure," Social Science and Medicine, Part C: Medical Economics,(Oxford/Elmsford, N.Y.) 15 C (1), March, pp. 39-39.

The authors "analyze the eventual correlation between socio-economic factors and mortality, in particular mortality by specific cause of death, with the aim of building a kind of typology of causes of death which could eventually help policy makers concerned with the crucial problem of the relationship between health and development." A principal components analysis of international data for 1964 is presented. (PI)

29 **Bocaz, A.,** 1980, "El uso de modelos lineales en el análisis demográfico, con aplicaciones a la mortalidad infantil", CELADE, Serie A, No. 166, 70 pp.

El autor utiliza un modelo lineal para examinar los efectos sobre la mortalidad prenatal e infantil de factores tales como la edad de la madre, y paridez, residencia geográfica, ocupación del padre, nivel de instrucción de la madre, y atención de salud para madres y niños. Se ilustra el modelo en base a datos provenientes de la Ciudad de Nueva York y de Chile. (MF)

30 **Boulanger, P.-M., et Tabutin, D., (editors)** 1980, La mortalité des enfants dans le monde et dans l'histoire, Liège. Ordina Editions, 413 pp.

A state of the art survey on research into infant mortality; contains special chapters on infant and child mortality in ancient regime Europe, Latin America, Africa, Asia, et al. (PI)

Contains, inter alia (a) Arriaga, E., "La mortalité des enfants dans quelques pays d'Amérique latine," pp. 223-257. (b) Loriaux, M., et Rémy D., "La mortalité des enfants et les indicateurs socio-économiques de développement: une vision mondiale," pp. 287-386. (c) Boulanger, P.-M., "Les grandes orientations de la lutte contre la mortalité des enfants," pp. 387-404.

31 **Bourgeois-Pichat, J.,** 1979, "Perspectivas futuras de la reducción de la mortalidad en el mundo", Boletín de Población de las Naciones Unidas, No. 11, pp. 14-44.

Continuación de un estudio realizado por el autor en 1952, en el cual se utilizaba un análisis de la mortalidad clasificada en la producida por causas endógenas y exógenas, con el fin de establecer un límite biológico, aunque temporal, de la reducción de la mortalidad. El fundamento de este análisis consiste en la diferencia de medios para atacar estos dos tipos de enfermedades; existen tres métodos muy eficaces para combatir las causas exógenas: la higiene y sanidad, la vacunación y los antibióticos; en cambio, hasta el momento no se ha descubierto nada semejante para atacar las causas endógenas, por lo que esta mortalidad puede considerarse como un límite temporal, necesitándose de nuevos descubrimientos para ampliarlo. En 1952 se usaron los datos de Noruega, cuya mortalidad era en esa época la más baja del mundo, obteniéndose una esperanza de vida al nacer de 78.2 y 76.3 años para mujeres y hombres respectivamente. En la estimación actual se empleó, para efectos comparativos, el mismo país, que está entre los de más baja mortalidad, obteniéndose una esperanza de vida de 80.3 años para las mujeres y de 73.8 para los hombres. Este efecto se produce por la combinación del descenso de la mortalidad exógena con el aumento de la endógena. (DOCPAL)

32 **Brandel, S.K.,** 1980, "What would be required to reduce the developing country infant mortality rate by 50 points by the year 2000?," Paper presented to the 1980 PAA Meeting, Denver, Colorado.

New resolve to assure that development tangibly benefits the majority of people in the Third World has focused increased international attention on efforts to achieve notably improved health for all people by the end of the century. A reduction of the average infant mortality rate (IMR) from its current level of 100-50 or less in LDCs is frequently cited as a measure of the magnitude of change needed.

The author suggests several ways in which demographic and social science research can contribute to informed choices in international health and development policymaking and planning processes. Multivariate analysis of cross-sectional, international data has identified those development strategies most strongly associated with declining levels of mortality. Such analysis can sketch the extent to which these same strategies might contribute to the desired 50-point reduction in IMRs in LDCs. The paper also includes a report on a recent evaluation of 10 primary health care pilot projects. The review indicates the extent to which wider participation in and access to preventive and curative health care might contribute to a reduction in infant mortality rates in LDCs. (PI)

33 **Brass, W.,** 1982, "Policies for the reduction of mortality differentials," Population Bulletin of the Economic Commission for Western Asia (ECWA), No. 19, pp. 3-27.

Mortality differentials can be defined and measured in two ways, either as the absolute differences in mortality levels or as the relative differences between groups. Utilization of each of these approaches may yield different answers to the issue of whether the strength of mortality differentials is changing through time.

Research on mortality differentials is heavily dominated by the experience of developed areas. There is great need for explanation of the mortality differentials that exist, particularly those by socioeconomic characteristics, in LDCs. The hypothesis is advanced that policies to reduce mortality differentials must either change the environment or operate on the capacities of the families to control it. (AU)

34 **Breilh, J.,** 1979a, "Community medicine under imperialism," International Journal of Health Services, Vol. 9, No. 1, pp. 5-24.

This paper explains the historical reasons for the reappearance, since the middle of the 20th century, of social issues in the medical context of capitalist countries.

The author interprets the rise of a community trend in medicine as one of the solutions that capitalism is proposing for the problems of public health. He considers that primary care coverage extension projects provide a means to attend to minimal levels of social demand, as well as basic conditions for the protection of previously neglected populations, without changing social relations or significantly diminishing productive investment. On the contrary, the consumer market will in many cases be expanded by new forms of demand.

The contradictory nature of "community" services under capitalism is analyzed to provide a basis for the design of a strategy that takes into account the interests of the people. (AU)

35 **Breilh, J.,** 1979b, "La desigualdad ante la muerte: epistemología y epidemiología", en: Dierckisens, W., y Fernández, M., (editores), Economía y Población: una reconceptualización crítica de la demografía, San José, Editorial Universitaria Centroamericana, pp. 277-305.

El diseño de toda investigación tiene como etapas generales los siguientes pasos: la elaboración del planteamiento del problema; la conformación de un marco teórico; la construcción de las hipótesis con un

contenido lógico; la elaboración de un plan de observaciones de los procesos delimitados como parte del problema; el diseño de los procedimientos de análisis de los resultados de la observación; la definición del valor de uso o práctica de los mismos. A partir de esta secuencia formal se examinan las etapas descritas teniendo como punto de referencia la salud y la enfermedad. (DOCPAL)

36 **Breilh, J., y Granda, E.**, 1982, Investigaciones de la salud en la sociedad: guía pedagógica sobre un nuevo enfoque del método epidemiológico, Centro de Estudios y Asesoría en Salud, Quito, 464 pp.

"El objetivo central de este texto es el de poner a disposición de los estudiantes y trabajadores de las diferentes instituciones y organismos vinculados con los problemas de la salud, un compendio sobre instrumentos conceptuales, metodológicos y técnicos que contribuya a orientar y apoyar la iniciación del lector en las tareas de investigación. Se pretende además orientar dicha tarea sobre auténticos fundamentos científicos, con el fin de contribuir a superar las pautas engañosas de la línea pragmática-positivista, que en el medio local ha sustentado la práctica científica vinculada con la salud". (AU)

37 **Brouard, N., Meslé, F. et Vallin, J.**, 1981, "Séminaire sur les méthodes d'analyse et de collecte des données", Population, Vol. 36, No. 6, pp. 1183-1190.

Fournit un compte rendu du deuxième séminaire de la Commission sur les facteurs affectant la mortalité et la durée de vie (de l'Union internationale pour l'étude scientifique de la population) tenu à Dakar du 7 au 10 juillet 1981. Dix-huit communications sollicitées et 15 communications spontanées étaient présentées. La composition des six séances adoptées par les organisateurs était la suivante: (a) problèmes conceptuels et stratégie de collecte pour l'étude de la mortalité différentielle; (b) méthodes de collecte des données pour la mesure de la mortalité dans les pays en dévelop-

pement; (c) méthodes pour l'analyse des déterminants de la mortalité; (d) méthodes pour l'ajustement des mesures de la mortalité; (e) méthodes pour l'analyse de la morbidité et des causes de décès; (f) quelques autres problèmes de mesure de la mortalité.

Les notes infrapaginales indiquent les auteurs et les titres des communications présentées qui sont brièvement commentées dans le texte. (MF)

38 **Bucht, B. and Chamie, J.,** 1982, "Estimates and projections of infant mortality rates," paper presented at PAA Conference," World Trends in Mortality Session, San Diego, 35 pp.

The United Nations Population Division with the encouragement and support of UNICEF and the assistance of WHO has recently completed a comprehensive project that provides estimates and projections of infant mortality for all countries of the world for the period from 1950 to 2025. This research is the first of its kind as estimates and projections of infant mortality have not been previously done for all countries of the world on a comparable and consistent basis.

This paper reviews the estimates and projections produced by the project. The various sources and quality of the data as well as the indirect demographic techniques employed to estimate the levels of infant mortality are reviewed and evaluated. To highlight the issues and problems, a few selected countries are examined in detail. The paper concludes with a discussion of the implications of the results and offers suggestions regarding directions for future research. (AU)

39 **Burke, M., York, M., and Sande,** I., 1979, Inter-American investigation of mortality in childhood: report on a household sample, Pan American Health Organization, Scientific Publication No. 386, Washington, D.C. 145 pp.

Contains four chapters: (a) Burke, M., "Inter-American investigation of mortality in childhood -

report on a household sample." (b) York, M., "Growth curves and nutritional status of children in selected study areas in Latin America." (c) Sande, I., "Social and economic characteristics of mothers." (d) Sande, I., "Products of pregnancy and their survival related to the characteristics of mothers."

40 **Butz, W.P., DaVanzo, J., and Habicht, J.P.,** 1982, "Biological and behavioral influences on the mortality of Malaysian infants," a Rand Note, prepared for U.S. Agency for International Development (AID). N-1638-AID, 76 pp.

This study "examines the determinants of infant mortality variations in Peninsular Malaysia. It considers proximate biological correlates of mortality, as well as family characteristics and behaviour, and inspects the degree to which some of these latter factors have their effects indirectly through more proximate factors. It assesses how these influences and interactions change in importance through successive subperiods of the first year of an infant's life."

The analysis is based on data from the 1976-1977 Malaysian Family Life Survey. A separate section is included on the relationship between infant feeding and infant mortality. (PI)

41 **Butz, W.P., Habicht, J.P., and DaVanzo, J.,** 1981, "Improving infant nutrition, health and survival: policy and program implications from the Malaysian Family Life Survey," Rand Corporation, Santa Monica, Calif., U.S. Agency for International Development (AID), Washington, D.C., 15 pp.

This report contains selected findings from a series of projects concerned with family, community, and program influences on contraceptive use, breastfeeding, birth spacing, fertility, and infant mortality in Peninsular Malaysia. The present report focuses on the factors influencing the nutrition, health, and mortality of infants and is designed to summarize findings that are most directly useful to policymakers and program managers. (PI)

42 **Cabrera, R.**, 1980, "The influence of maternal age, birth order and socio-economic status on infant mortality in Chile," American Journal of Public Health, Washington, Vol. 70, No. 2, February, pp. 174-177.

In Chile, between 1969 and 1974, the birth rate declined by 10% and the infant mortality rate by 18.6%. In 1974, there were proportionately fewer births at high birth order than in 1969. Such births carry significantly higher risk to the infant in both the neonatal and postneonatal period of life. Comparison of data from urban areas of high and low socioeconomic status yield similar findings. (AU)

43 **Cáceres, F.**, 1980, "República Dominicana: la mortalidad 1950-1970", trabajo final presentado en CELADE, curso de Análisis Demográfico Avanzado 1980-81, Santiago, 73 pp.

La medición de la mortalidad en República Dominicana en 1950, 1960 y 1970, se basa en la aplicación de métodos de estimación indirectos a la información de los registros de defunciones y de otras fuentes. La variabilidad en las estimaciones de los niveles de mortalidad, resultantes de la aplicación de los métodos de Brass I y II y del método de Preston-Hill, responde a los supuestos implícitos en los mismos y que no se cumplen en el caso analizado. Mediante el uso de información retrospectiva se obtienen magnitudes de subregistro que alcanzan al 48% de las defunciones en mayores de 5 años y más, al 61% en el caso de los menores de 1 año y al 56% para los niños entre 1 y 4 años (p.20). Las estimaciones revelan que, entre 1950-1960 se produce una disminución de la mortalidad de tal magnitud que se observan ganancias en la esperanza de vida al nacer de 8.79 años para los hombres y 9.05 para las mujeres, asociadas a medidas sanitarias y de salud adoptadas, así como a campañas dirigidas especialmente a las áreas rurales. En la década siguiente, las ganancias alcanzan a 2.14 años en los hombres y 3.30 en las mujeres, en el marco de una casi ausencia de programas de salud y saneamiento ambiental derivados de la inestabilidad política del país. (DOCPAL)

44 **Caldwell, J.C.,** 1979, "Education as a factor in mortality decline: an examination of Nigerian data," Population Studies, London, Vol. 33, No. 3, pp. 395-413.

The debate between those who see economic development and those who regard advances in medical technology as bearing major responsibility for mortality decline usually gives little attention to different stages of social change when economic or medical conditions are fixed. However, Nigerian statistics analyzed here show that very different levels of child survivorship result from different levels of maternal education in an otherwise similar socioeconomic context and when there is equal access to the use of medical facilities. Indeed, maternal education in Nigeria appears to be the single most powerful determinant of the level of child mortality. The statistics come from two surveys undertaken in 1973: one of 6,606 women in Ibadan city, and the other of 1,499 women in a large area of south-west Nigeria. Proportions of children surviving are compounded into an index of child mortality to increase the frequencies in individual cells and standardize maternal age when child survivorship is correlated with a range of factors, and two component indices are also constructed to detect change over time. It is concluded that women's education in societies like that of the Yoruba in Nigeria can produce profound changes in family structure and relationships, which in their turn may influence both mortality and fertility levels. Education may well play a major role in the demographic transition and this role may help to explain the close timing of mortality and fertility transitions. (AU)

45 **Caldwell, J.C., and McDonald, P.,** 1981, "Influence of maternal education on infant and child mortality: levels and causes," in IUSSP International Population Conference, solicited papers, Vol. 2, pp. 79-96.

Data from the World Fertility Survey in 10 Third World countries are used to test the conclusion, based on a Nigerian study, that maternal education is important in reducing child mortality.

The analysis confirms the major importance of parental education, the impact of which is probably greater than both income factors and access to health facilities combined. Rural/urban differentials are of small importance once parental education has been controlled. The findings of the Nigerian study are modified in that paternal education is also shown to be important, though not as important as maternal education, and the step from primary to secondary schooling is more important than that from illiteracy to primary schooling. Reasons for the importance of parental education are also discussed. (PI)

46 **Campos, O.**, 1979, "Contribuição ao estudo dos sistemas de saúde" en: *Anais Primeiro Encontro Nacional de Estados Populacionais*, São Paulo, Associação Brasileira de Estudos Populacionais, pp. 265-281.

La creciente tendencia a "sistematizar" la salud, bajo la óptica de la teoría de los sistemas, responde a la necesidad de adecuar las instituciones de salud a las exigencias del modelo de producción. A los argumentos de eficiencia, se suma la valorización de la salud como un medio para lograr el desarrollo y como sinónimo de felicidad. Las finalidades reales de dichos sistemas son ampliamente rebatidas a la luz del reconocimiento de que los determinantes básicos de la salud se sitúan al margen de los servicios, en las condiciones materiales de vida. En la sociedad actual, los servicios de salud constituyen servicios de control en tanto suprimen, previenen o manipulan las contradicciones generadas por la dinámica social y que son reconocidas como "problemas" por los grupos dominantes, contribuyendo a la mantención del orden social. Más que producir salud, los servicios cumplen determinados objetivos políticos de la sociedad en que se insertan. Desde el punto de vista del consumidor de salud, las demandas son generadas por las propias agencias encargadas de atenderlas, las que prácticamente "producen" los problemas que pretenden resolver. La imposibilidad técnica de solucionar dichos problemas, en función de las necesidades cada vez mayores de recursos, llevará necesariamente a la desprofesionalización de gran parte de la atención médica. (DOCPAL)

47 **Capote, R., y Villar, H.**, 1980, "La salud, marco conceptual y social en la República de Cuba", Revista Cubana de Administración de Salud, Vol. 6, No. 3, julio-septiembre, pp. 261-268.

Partiendo del concepto del hombre como una unidad biosocial, la salud es definida como la resultante de la interrelación dinámica entre el individuo y su medio, que se expresa por un estado de bienestar mental y social. Las normas de la práctica médica y los conceptos de salud y enfermedad que la sustentan, cambian en las distintas épocas históricas, modeladas por el modo de producción. Contrario a lo que ocurre bajo el feudalismo y el capitalismo, en el socialismo la ciencia está al servicio del hombre y constituye una función social de especial relevancia que se materializa a través de los servicios de salud. El Estado garantiza el derecho a la protección y atención en salud, así como los derechos al trabajo y otras necesidades básicas, en el marco de principios de organización y funcionamiento centrados en el hombre y basados en una democracia socialista, la unidad de poder y el centralismo democrático. (DOCPAL)

48 **Carvalho, J., y Sawyer, D.**, 1979, "Diferenciais de mortalidade no Brasil", en: Anais Primeiro Encontro Nacionalde Estudos Populacionais, Associação Brasileira de Estudos Populacionais, pp. 229-259.

El estudio de la mortalidad diferencial en Brasil se basa en un análisis de los trabajos sobre diferenciales regionales, por causa de muerte y por variables socioeconómicas, para el período 1950-1970. A pesar de la diversidad de estimaciones presentadas por los distintos autores, se observa un consenso en torno a los siguientes aspectos: a) la persistencia de elevadas diferencias entre las regiones, aún después de 3 décadas de crecimiento económico sostenido. La esperanza de vida al nacer es de 43.8 años en el Noreste Central y de 68 años en la región extremo-sur (1960-1970) (p. 234), con tasas de mortalidad infantil de 140 y 77 por mil, respectivamente (p. 233), observándose diferencias intrarregionales entre los distintos grupos sociales; b) la simple diferencia rural-urbana (con niveles de esperanza de vida de 54.2 y 54.9 años respectivamente) (p. 235) no proporciona un marco de referencia adecuado para el análisis diferencial. La inclusión de la variable clase social arroja una relación de 0.89 años para los niveles inferiores de ingreso y de 1.04 para los superiores, por lugar de residencia, a nivel nacional (p. 251); c) a pesar de los niveles relativamente bajos de mortalidad en algunas ciudades, éstas exhiben patrones de mortalidad por causa de muerte compatibles tanto con sociedades desarrolladas como con sociedades en desarrollo; d) los factores no-médicos ejercen una mayor influencia que el quantum de atención médica, especialmente el nivel de educación, las condiciones sanitarias y el nivel socio-económico. (DOCPAL)

49 **Carvalho, J., and Wood, C.,** 1978, "Mortality, income distribution, and rural-urban residence in Brazil", Population and Development Review, Vol. 4, No. 3, September, pp. 405-420.

El promedio de años de la esperanza de vida al nacer en Brasil, se utiliza en este estudio para reflejar los niveles de mortalidad que caracterizan a sub-grupos de la población Brasilera. La esperanza de vida en este país ha aumentado en 30% desde los años 30 (p. 406). Diferencias interregionales aumentaron entre 1930-1940 y 1940-1950 y descendieron durante 1950-1970. La esperanza de vida de las familias adineradas sobrepasa la de las familias pobres por más de 12 años en 1970 (p. 408), con una variación considerable por regiones. Los resultados sugieren disminuciones en las diferencias de clase social a medida que la mortalidad decae de niveles altos a moderados, pero aumenta con descensos adicionales de la mortalidad, hecho atribuible a cambios en las causas de muerte y a una influencia cada vez mayor del poder adquisitivo del individuo. La esperanza de vida urbana de las familias de bajos ingresos es más baja que la rural; lo contrario es cierto para aquéllas en las clases de más altos ingresos. (DOCPAL)

50 **Catasus, S.,** 1981, "Incidencia de las diferentes

causas de muerte en los niveles de mortalidad de la población en Cuba" en: Revista Cubana de Administración de Salud, (Havana) 7 (3), julio-septiembre, pp. 233-253.

Se analizan las diferencias de causas de muerte entre diferentes regiones de Cuba. Se proporcionan tasas de mortalidad por causas y según sexo para Cuba y regiones en 1970, y para todo el país en 1975. Se estima el impacto de la eliminación de algunas causas de muerte seleccionadas. (MF)

51 **Chackiel, J.**, 1982, "Factores que afectan a la mortalidad en la niñez", Notas de Población, Vol. 10, No. 28, abril, pp. 43-85.

El presente artículo tiene como propósito analizar diferenciales y detectar factores que afectan a la mortalidad en la niñez, con base en los datos obtenidos a partir de las encuestas de fecundidad que se llevaron a cabo en varios países en el marco de la Encuesta Mundial de Fecundidad. En particular, se trabaja con las encuestas de Colombia, Costa Rica, Panamá, Perú y República Dominicana.

La información disponible permite considerar tres tipos de variables explicativas: (a) las contextuales, relacionadas con el medio ambiente en que se desenvuelve la madre (área de residencia, región natural), (b) las socioeconómicas, en base a características educativas y económicas de la madre y su último esposo, y a partir de la historia de embarazos de cada mujer se incluyen (c) factores biológicos, como ser la edad de la madre al nacimiento del hijo, el orden del nacimiento, el intervalo intergenésico, etc.

En la mayoría de las variables consideradas, los países tanto de alta como de baja mortalidad presentan grandes desniveles en la mortalidad de los niños. En Panamá y Costa Rica hay sectores de población con tasas de mortalidad infantil de alrededor de 100 por mil nacidos vivos, mientras que en Perú superan 150 por mil (hijos de madres sin instrucción, clase baja agrícola, etc.).

Además de presentar los diferenciales, se realiza un ensayo metodológico mediante la aplicación a Costa Rica y Perú del modelo de riesgo proporcional que permite analizar los efectos de las variables actuando simultáneamente sobre la mortalidad al comienzo de la vida. En ese ejercicio se destacan, por mostrar mayores desigualdades en el nivel de mortalidad, la "región natural" entre las contextuales, la "educación materna" entre las socioeconómicas, el "intervalo intergenésico" y la "edad de las madres al tener sus hijos" entre las biológicas. (AU)

52 **Chackiel, J.**, 1981a, "Análisis comparativo de la mortalidad infantil en base a la Encuesta Mundial de Fecundidad", Princeton, New Jersey, 103 pp.

El estudio se centra en el examen de los niveles y tendencias de la mortalidad infantil, para posteriormente examinar los diferenciales y determinantes más importantes posibles de detectar a través de la Encuesta Mundial de Fecundidad. Las estimaciones logradas con datos de la encuesta y la comparación con los resultados obtenidos de las estadísticas vitales, así como el análisis del funcionamiento de los métodos indirectos apuntan, por un lado, a la robustez mostrada por estos últimos siempre y cuando se conozca el patrón de mortalidad en los primeros años de vida. Sólo las tasas de las edades extremas del período reproductivo presentan desviaciones importantes, debidas a las diferencias de mortalidad por edad de las madres al ser encuestadas, o a omisiones en la declaración de los hechos. En cuanto a los diferenciales de la mortalidad infantil según variables geográficas, socioeconómicas y biológicas, todas muestran desniveles importantes entre las categorías consideradas. En un intento por precisar si las diferencias no son manifestaciones de un mismo fenómeno, se realiza un análisis multivariado observándose, por ejemplo en el caso de Costa Rica, que el lugar de residencia pierde importancia al controlar otros factores quizás porque la condición urbano-rural en sí no es la que pesa sino la presencia en las áreas rurales de una diferente estructura socioeconómica y hasta un efecto diferenciado de los factores biológicos mismos. Más marcada es la reducción de los desniveles mostrados por la clase social, hecho que debe interpretarse con cautela por la alta correlación de esta variable con otras de las consideradas. (DOCPAL)

53 **Chackiel, J.,** 1981b, "Niveles y tendencias de la mortalidad infantil en base a la Encuesta Mundial de la Fecundidad", Notas de Población, Vol. 9, diciembre. No. 27, pp. 67-119.

En muchos países de América Latina se han llevado a cabo encuestas de fecundidad dentro del programa de la Encuesta Mundial de Fecundidad (EMF). Si bien el objetivo de este programa es mejorar el conocimiento de la fecundidad y los factores asociados, la información disponible proporciona una muy buena oportunidad para analizar algunos aspectos relacionados con la mortalidad al comienzo de la vida.

En este documento se presentan estimaciones de las tasas de mortalidad infantil de Colombia, Costa Rica, Panamá, Perú y la República Dominicana para un período de quince años anteriores a las encuestas (aproximadamente 1960-1975) en base a la historia de nacimientos, las que se comparan con las tasas derivadas de las estadísticas vitales y con estimaciones indirectas a partir de información sobre nacidos vivos y sobrevivientes de la misma encuesta mundial y de otras fuentes.

Si bien los datos de la EMF adolecen de irregularidades debidas a sesgos de respuestas y errores de muestreo, presentan un panorama claro sobre los niveles y tendencias de mortalidad infantil de estos países. El Perú y la República Dominicana tienen la mortalidad más alta, y Panamá la más baja, quedando las de Colombia y Costa Rica en un nivel intermedio, y mostrando este último país el descenso más importante del período.

Uno de los hallazgos importantes de la investigación se relaciona con la robustez de los métodos indirectos para estimar la mortalidad al comienzo de la vida, cuando se conoce aproximadamente el patrón de mortalidad en los primeros 10 años de vida. (AU)

54 **Chanfreau, D.,** 1979, "Professional ideology and

the health care system in Chile," International Journal of Health Services, Vol. 9, No. 1, pp. 81-105.

Doctors' ideology and the role the medical profession plays in the organization and development of health services of a particular country are subjects of scientific interest. This article examines the case of Chile, where doctors centralized administrative and professional power over the last 30 years, and illustrates how doctors' ideology had a major influence over the type of health services provided to the population. Changes in this ideology throughout the century have been reflected in changes in the system of medical care. A shift can be traced from a professional ideology emphasizing socialized medical services during the first half of the century toward the current position favouring the abolition of free medical care and a return of "fee per service" medicine.

The possible explanation for these changes is that medical ideology has altered through the combined influence of the class position of physicians and the development of the profession itself. Increasing polarization of the political forces in Chile led doctors to act according to their class affiliation, regardless of their original professional positions. Some historical facts are provided at each stage of analysis as a way of clarifying the conflicting influences upon the doctors' position. (AU)

55 **Chen, L., Chakraborty, J., Sardar, A., and Yunas, M.,** 1981a, "Estimating and partitioning the mortality impact of several modern medical technologies in basic health services," solicited paper, IUSSP International Population Conference, Manila, Vol. 2, pp. 113-160.

This is an examination of the impact on mortality of specific health technologies introduced over time in a large study population under longitudinal demographic surveillance. Data are for the Comilla district of Matlabthana, Bangladesh, for the period 1963 through 1979. The data made it possible to assess the mortality impact of individual health technologies and to analyze the interactions between specific interventions and demographic variables. Methodological lessons for the design and implementation of future health programs are considered. (PI)

56 **Chen, L., Chowdhury, A.K.M., and Huffman, S.L.,** 1980a, "Anthropometric assessment of energy protein malnutrition and subsequent risk of mortality among preschool aged children," American Journal of Clinical Nutrition, Vol. 33, pp. 1836-1845.

This paper examines the usefulness of various anthropometric classification systems of nutritional status in prognosticating the subsequent risk of mortality among 2,019 children aged 13-23 months residing in a rural area of Bangladesh. The indices investigated included: weight-for-age; weight-for-height; height-for-age; arm circumference-for-age; arm circumference-for-height; weight quotient; and height quotient. Cross-sectional anthropometry was conducted during October 1975 to January 1976 and the mortality experience of the study children was followed prospectively over 24 months. Results indicated that severely malnourished children, according to all indices, experienced substantially higher mortality risk. Normal, mild, and moderately malnourished children all experienced the same risk. All indices were found to discriminate mortality risk; weight/age and arm circumference/age were strongest and weight/height weakest. For each index, a threshold level was noted below which mortality risk climbed sharply. The discriminating power of anthropometry was enhanced when maternal weight, maternal height, or housing size were included. (AU)

57 **Chen, L., Huq, E., and D'Souza, S.,** 1980b, "Sex bias in the family allocation of food and health care in Rural Bangladesh," Population and Development Review, Vol. 7, No. 1, March, pp. 55-70.

This study examines the behavioral antecedents to the higher female than male mortality from shortly after birth through the childbearing ages in a rural area of

Bangladesh. A framework is presented in which the intermediate variables through which sex-biased attitudes and practices might operate to affect health, nutrition, and mortality are postulated. The malnutrition rate was found to be substantially higher among female children than among male children. In-depth dietary surveys showed that males consistently consumed more calories and proteins than females at all ages, even when nutrient requirements due to varying body weight, pregnancy, lactation, and activity levels were considered. Although child infection rates were similar between sexes, utilization of health care services at a free treatment unit showed marked male preferences. Implications for policy formulation and program implementation are discussed in the conclusion. (AU)

58 **Chen, L.C., Huq, E., and Huffman, S.L.,** 1981b, "A prospective study of the risk of diarrheal disease according to the nutritional status of preschool-aged children," American Journal of Epidemiology, Vol. 114, No. 2, pp. 284-292.

Prospective field data were employed to examine the effect of child malnutrition on the subsequent risk of diarrhea among preschool children in rural Bangladesh. A total of 2,019 children aged 12-23 months were classified according to weight-for-age, weight-for-height, and height-for-age of the Harvard median standard. Over a 24-month prospective period, diarrheal hospitalization rates among the children were matched to the initial anthropometric assessment. No differences in diarrheal hospitalization rates were noted for the children according to the initial nutritional status. Another group of 207 children under 5 years of age was classified according to weight-for-age and their diarrheal attack rate in the field was followed prospectively for 1 year after nutritional assessment. Again, no differences in field diarrheal attack rates were noted between children of varying nutritional status categories. The nutritional status of the 207 children was then defined as monthly growth velocity (kilogram change in body weight, percentage change of initial body weight, and percentage change in weight-for-age) and the diarrheal attack rate for the subsequent 1-month period was observed. No differences in attack rates were noted between nutritional groups. The study failed to demonstrate that nutritional status defined by anthropometry was associated with the subsequent risk of diarrheal diseases. (AU)

59 **Chen, L., Rahman, M., and Sarder, A.,** 1980c, "Epidemiology and causes of death among children in a rural area of Bangladesh," International Journal of Epidemiology, (London), Vol. 9, No. 1, pp. 25-33.

From a longitudinal surveillance program among a rural Bangladesh population of 260,000 the epidemiology and causes of child death (under age 5) over 3 years (1975-77) were analyzed. The most significant causes of death were diarrhea (watery and dysentery), tetanus, measles, fever, respiratory disease, drowning, skin disease, and other causes. Of an infant mortality rate of 142.6/1,000 live births, neonatal tetanus (37.4/1,000), diarrhea (19.6/1,000), and respiratory disease (10.4/1,000) were the most significant, identifiable causes. Many infant deaths (62.2/1,000) were unidentified, taking place during the neonatal (1-28 days) period. The 1-4 year mortality averaged 34.3/1,000. Diarrhea (15.1/1,000), measles (4.5/1,000), fever (2.9/1,000) and respiratory disease (1.6/1,000) accounted for most 1-4 year deaths. Mortality trends over the past 10 years showed sharp temporary fluctuations in response to two disasters but no definitive long-term trend. Most causes of death displayed seasonal fluctuation, and sex differentials were marked with female deaths exceeding male deaths for all ages after the neonatal period. Malnourished children from low socioeconomic status families had higher mortality rates than their better nourished and wealthier counterparts. Overall, the data suggest that the delivery of a few basic health measures (oral hydration and immunization) could result in substantial reduction of under 5 mortality. (AU)

60 **Chossudovsky, M.,** 1979, "Human rights, health and capital accumulation in the Third World," International Journal of Health Services, Vol. 9, No. 1, pp. 61-75.

This article examines the relationship between human rights and the pattern of capital accumulation in the Third World. The repressive authoritarian State increasingly constitutes the means for enforcing the intensive exploitation of labour in Third World industrial enclaves and commercial agriculture.

While the development of centre capitalism has evolved toward "the Welfare State" and a framework of liberal sociodemocracy, the "peripheral State" is generally characterized by nondemocratic forms of government. This bipolarity in the state structure between centre and periphery is functionally related to the international division of labour and the unity of production and circulation on a world level. The programs and policies of the centre Welfare State (health, education, social security, etc.) constitute an input of "human capital" into the high-technology centre labour process. Moreover, welfare programs in centre countries activate the process of circulation by sustaining high levels of consumer demand.

In underdeveloped countries, the underlying vacuum in the social sectors and the important allocations to military expenditure support the requirements of the peripheral labour process.

Programs in health in the centre and periphery are related to the bipolarity (qualification/dequalification) in the international division of labour. The social and economic functions of health programs are intimately related to the organic structure of the State and the mechanics whereby the State allocates its financial surplus in support of both capitalist production and circulation. (AU)

61 **Chowdhury, A.K.,** 1981, "Infant deaths, determinants and dilemmas (a cohort analysis for rural Bangladesh)," International Centre for Diarrhoeal Disease Research, Bangladesh, Scientific Report, No. 46, Dacca, 22 pp.

A report is presented on an analysis of early neonatal, late neonatal, and postneonatal mortality in Bangladesh. Data are for a cohort of 20,000 births that occurred in a rural area in the late 1960s and that were followed for a year. Differentials in mortality are examined by sex, previous infant mortality experience of the mother, and survival of siblings. (PI)

62 **Clark, Carol,** 1981, "Demographic and socioeconomic determinants of infant growth in Guatemala," paper presented to the Latin American Demography session of the 1981 PAA Meetings in Washington.

The author uses a multiple regression analysis to test a model relating infant growth to household size and composition. The sample consists of 301 infants (0-12 months) living in four rural Spanish-speaking Guatemalan Villages. Results suggest that the household size and composition may operate on infant growth through (a) maternal health (b) child care restraints (c) crowding, and (d) food resources. Maternal health plays an important role during the first 6 months of life. Food and time constraints and crowding become more important during the second 6 months of life. Income is positively related to growth even in the presence of unlimited and presumably free food provided through an INCAP (Instituto de Nutrición de Centro América y Panamá) supplementation program. Consumption of a supplement composed of protein and other sources of calories contributes to growth during the second 6 months of life. In light of these results, several policy options in addition to those in the areas of family planning and income redistribution are discussed. (PI)

63 **Cochrane, S.,** 1980, "Educational differences in child survival in developing countries," paper presented at the 1980 PAA meeting, Denver, Colorado.

The focus of this study is the relationship between child survival and maternal education in aggregate data from a wide range of LDCs. This paper contains a brief review of the existing literature and a new analysis of the data. The analysis quantifies the relationship between maternal education and child survival measured by either life table values or the proportion of children surviving. Preliminary regression analysis of data from 29 countries shows a linear relationship which is quite similar in urban and rural areas.

An attempt is also made to determine how educational differences in child survival within a country vary by level of per capita income, life expectancy, time period, government expenditures on health, and income inequality. Only government expenditures on health systematically reduce the mortality of the children of the least educated relative to those of the most educated. (PI)

64 Cochrane, S., O'Hara, D., and Leslie, J., 1980, "The effects of education on health," World Bank Staff Working Paper, No. 405, July, 95 pp.

This paper investigates, from three overlapping perspectives, the effects of education on health. The determinants of mortality are receiving increasing scrutiny because the rate of mortality reduction in the developing world appears to have slowed at levels of life expectancy below those thought attainable only a few years ago. The first perspective employed in this paper is a broad assessment of the socioeconomic determinants of mortality on a cross-national basis; using aggregate data, this paper contains a review and a reanalysis of the large body of literature that has accumulated on international differences in mortality and life expectancy. The second perspective sharpens the focus by concentrating on the relationship between education and mortality because the cross-national evidence suggests that education, or its proxy literacy, is the most important variable involved. A theoretical model of the relationship between parental education and child health is developed and used to describe how aggregate and individual data may give different estimates of the relationship. The third perspective employed reviews and reanalyzes the evidence at the subnational level. Individual evidence is reviewed on the relationship between parental education and both child nutrition and child mortality. This evidence is then compared with aggregate data to test the implications of the model. (AU)

65 **Cordeiro, H.**, 1979, "Sistemas de saúde: o estado e a democratização da saúde", en: Anais Primeiro Encontro Nacional de Estudos Populacionais, São Paulo, Associação Brasileira de Estudos Populacionais, pp. 285-300.

En el campo de la salud, la ideología de la racionalización y de la modernización aboga por una participación comunitaria activa en la definición y solución de los problemas, haciendo perder de vista los centros de decisión real: las articulaciones entre clases y fracciones de clase en el sistema de poder y los estamentos burocráticos que dirigen los aparatos del Estado. Las tentativas de implantar una racionalidad administrativa en el Brasil se ligan al campo de la seguridad social, en donde la estatización define una ideología de relación entre las clases, con el estado como mediador y atenuador de los conflictos. La actual política de salud no responde a los intereses populares sino que constituye un instrumento de reconcentración del ingreso, contradiciendo su meta redistribuitiva explícita. La reconquista de la salud debe dirigirse hacia la creación de un sistema único encargado de planificar y ejecutar las políticas y cuyas actividades están controladas por la población y los profesionales de salud, a través de sus organizaciones. Se propone la redefinición de la política de atención médica; la ampliación de los gastos directos en el control del ambiente y endemias; la integración de la enseñanza profesional al sistema con una articulación aprendizaje-trabajo desde el inicio de los estudios; la definición de una política en el área de producción y distribución de medicamentos y equipos, basada en la simplicidad y eficiencia tecnológica. (DOCPAL)

66 **Corona, R., Jiménez, R., y Minujín, A.**, 1982, La mortalidad en México, Instituto de Investigaciones Sociales, Universidad Nacional Autónoma de México, México, 164 pp.

Presenta un resumen de una metodología anteriormente elaborada para calcular tablas de mortalidad. Proporciona una serie de cuadros que dan una visión general del nivel de mortalidad en las diversas entidades federativas de México para diferentes períodos, y finalmente exhibe tablas abreviadas de mortalidad por sexo y entidad federativa para 1940, 1950, 1960 y 1970. (MF)

67 **Cuba, Comité Estatal de Estadísticas. Dirección de Demografía,** 1981, "Características de la mortalidad cubana y su nivel en 1977/78", enero, 138 pp.

Las estimaciones y tablas de mortalidad para Cuba revelan que entre 1977-1978 la esperanza de vida alcanzó a los 72.72 años para ambos sexos (p.57) con diferencias de 3.42 años entre hombres y mujeres (p.62). Esa cifra alcanzaba en 1970 a sólo 70.04 años (p.65). El examen del período 1969-1971 y 1977-1978 revela una tendencia al descenso de las diferencias en la esperanza de vida entre los sexos a la vez que evidencia una variación diferencial según grupos de edad. Los descensos más importantes han tenido lugar para los menores de 5 años y en especial entre los menores de 1 año cuya tasa se ha reducido prácticamente a la mitad. Al mismo tiempo, se observa una disminución de las diferencias en las esperanzas de vida a nivel provincial, producto de los logros educacionales y de salud de la revolución. (DOCPAL)

68 **Cuba, Comité Estatal de Estadísticas, Dirección de Demografía,** 1980, "Cuba, evaluación en 1974 de los registros de defunciones", La Habana, 56 pp.

Descripción de la metodología y los resultados de la evaluación realizada en Cuba, respecto a los registros de defunciones, en 1973-74. Dicha evaluación consistió en el cotejo de las defunciones anotadas en el registro oficial con una lista que se denominó "registro no-oficial"; el primero correspondía a las inscripciones de Registro Civil y los certificados médicos de defunción emitidos por el Ministerio de Salud Pública; el segundo se formó agregando, a la lista oficial, las defunciones inscritas en los cementerios y en el Registro Nacional de Consumidores. Además del cotejo entre estas dos listas, se efectuaron varios controles entre las diferentes fuentes por separado.

Este trabajo se realizó a manera de prueba en la Región de Escambray, para después aplicarse a nivel nacional, entre abril y septiembre de 1974. Los resultados mostraron una omisión de 3.9% (p.40) en el total del país; en las provincias de Matanzas y Las Villas la omisión fue prácticamente nula, correspondiendo el mayor porcentaje a la provincia de Oriente, con un 10% (p.40). La tasa de mortalidad corregida con estos datos, para el país, resultó de 5.8 por mil (p.54). En la provincia de Matanzas se realizó, a manera de control, una nueva experiencia, agregando otras fuentes a la lista no oficial; se comprobó con ello la omisión nula ya calculada para esta provincia. Se concluye que el registro de defunciones cubano se puede clasificar entre los "confiables", según el criterio internacional. (DOCPAL)

69 **Cuba, Comité Estatal de Estadísticas, Dirección de Demografía,** y O.N.U., CELADE, 1980, "Cuba: la mortalidad infantil según variables socioeconómicas y regiones, 1979", San José, diciembre, 93 pp.

En Cuba la mortalidad ha estado disminuyendo desde principios del siglo XX. Este descenso se aceleró en los años setenta y la tasa para Cuba (19 por mil en 1979) llegó a ser la más baja de Latinoamérica. Un hallazgo importante es la relativa inexistencia de diferenciales socioeconómicos de mortalidad en comparación con otros países latinoamericanos. Para Cuba la mayor parte de los diferenciales residuales está asociada con el nivel de instrucción de la madre. (MF)

70 **Damonte, A.,** 1980, "Uruguay: la mortalidad por causas en 1975 y sus perspectivas futuras" presentado en CELADE, Santiago, Curso de Análisis Demográfico Avanzado 1980-81.

Uruguay es un país que se ha destacado en la región por tener un bajo nivel de mortalidad cuyo descenso se inició a comienzos de este siglo. La población uruguaya muere fundamentalmente por causas de tipo endógeno, clasificadas como difícilmente evitables en el estado actual del conocimiento, especialmente aquellas relacionadas con el aparato circulatorio. Las probabilidades de morir en la población menor de 45 años corresponden a causas evitables y a causas residuales. Después de 45 años la probabilidad de muerte mayor corresponde a enfermedades del aparato circulatorio y al cáncer. Las mayores ganancias se lograrían si las enfermedades del corazón desaparecieran como causa de muerte, siguiéndole, en orden decreciente, los tumores malignos, el grupo residual y las causas evitables. (DOCPAL)

71 **Davis, C., and Feshback, M.,** 1980, "Rising infant mortality in the USSR in the 1970's," United States Bureau of the Census, Series P-95, No. 74, September, 33 pp.

The authors investigate the cause of the rise in Soviet infant mortality since 1971 by first examining general and infant mortality trends for the period 1958-76 and evaluating the availability and reliability of the Soviet data. Soviet infant mortality rates as affected by such demographic factors as urban and rural differentials, regional differentials, increase in birth rate, age of mother, and birth order are analyzed. Prenatal factors affecting the health of the mother and postnatal factors affecting the infant are also examined, and the Soviet health system's effectiveness in dealing with these factors is evaluated. (PI)

72 **De la Loza, A.,** 1980, "Evaluación de los programas de salud para la niñez en México", Salud Pública de México, 22 (6), noviembre-diciembre, pp. 631-654.

Se presenta un análisis de la mortalidad juvenil, infantil y neonatal para México en base a datos oficiales. Se hacen comparaciones con datos de otros países, y se identifican y discuten diferencias en cuanto a ciertas causas de mortalidad. (MF)

73 **Delgado, H., y Hurtado, E.,** 1979, "Población, nutrición y salud familiar y comunitaria: borrador preliminar", presentado en Seminario Latinoameri-

cano sobre "Interrelación desnutrición, población y desarrollo social y económico", Antigua, Guatemala, septiembre, 21 pp.

En la mayoría de los países en vías de desarrollo existen altos niveles de morbilidad, desnutrición, mortalidad, y crecimiento poblacional, particularmente en áreas rurales. En estas áreas el personal y los recursos son escasos y generalmente inadecuados, y/o subutilizados. Estos problemas de salud están íntimamente relacionados con las condiciones socioeconómicas existentes en el área rural. Es claro que la atención médica no puede solucionar la problemática existente y que es imperativo implementar métodos innovadores que complementen los servicios de salud con aquellos que contribuyen al mejoramiento de las condiciones socioeconómicas de la población. Dentro de este marco de referencia se discuten las interrelaciones existentes entre población, salud, nutrición y desarrollo, y se concluye que el estado de salud y nutrición de la población no sólo es un producto del desarrollo socioeconómico, sino que además, contribuye a ese desarrollo. Así, los programas de salud y nutrición deben formar parte de las actividades tendientes a maximizar el desarrollo socioeconómico de la población, y no debe aspirarse a que programas verticales de salud determinen el estado de salud de la población. Se proponen estrategias para el desarrollo de servicios integrados. (DOCPAL)

74 **Dellaportas, G.**, 1982, "International data: their use in showing relationships between socioeconomic and demographic variables," World Health Statistics Quarterly, (Geneva), Vol. 34, No. 2, pp. 110-126.

The author uses data for 40 countries representing various levels of development to evaluate the interrelationships between 12 demographic and socioeconomic variables. Three of the variables, namely, the infant mortality rate, net reproduction rate, and food supply index, are subjected to further analysis on the basis of importance and high degrees of correlation. Other variables include rate of population increase, percentage of population under 15 years of age, per capita

energy consumption, literacy rate, percentage of population that is economically active, per capita gross domestic product, live birth rate for women aged 19 or under, proportion of illegitimate live births, and neonatal mortality rate. The data relate primarily to the period 1970-74 and are derived from official U.N. and U.S. statistics. (PI)

75 **Del Pinal, J.,** 1981, "Breast-feeding and infant mortality in Guatemala," paper presented to 1981 PAA meeting, "Mortality change in developing countries" session.

The author presents an analysis of maternity histories collected in four rural villages and two marginal urban communities in Guatemala in 1975 and 1976 which suggest that nonlactation is not very prevalent. Nevertheless, nonbreast-fed infants are at least five times more likely to die in infancy than their breast-fed counterparts. The differential is even greater in the neonatal period of infancy and remains quite large through the postneonatal period. These data also suggest that mortality declined for both breast-fed and nonbreast-fed infants over the period considered. The survival chances of nonbreast-fed infants also seemed to improve if they survived the neonatal period, but their chances were never better than one-fourth the level of breast-fed children. The reasons given for nonlactation and early termination of breast-feeding appear to be related to maternal and child health rather than conscious decisions. Thus, lactation failure may be a good indicator of high risk in populations where the norm is to breast-feed at least 1 year. (PI)

76 **Diaz-Briquets, S.,** 1981, "Determinants of mortality transition in developing countries before and after the Second World War: some evidence from Cuba," Population Studies. Vol. 35, No. 3, November, pp. 399-411.

Few studies provide an insight into what factors contributed to declines in the mortality rates of developing countries before the Second World War. In this paper, statistics on causes of death from Cuba, particularly Havana, are used to investigate what may have been some of the principal determinants of mortality decline in the developing world before the arrival of modern drugs and insecticides. Trends in cause-specific mortality are examined in the light of Cuba's social, economic, medical, and public health history. The Cuban experience strongly suggests that in this country public health and sanitary reforms and nutritional improvements were largely responsible for initial declines in mortality throughout the first half of the 20th century.

One important finding is that the impact of these reforms and improved nutrition was greatly influenced by prevailing economic conditions. Periods of economic prosperity facilitated declines in mortality; but in times of adversity, the reverse occurred. It appears that during prosperous periods the maintenance and expansion of public health and sanitary facilities were made possible by increased public and private revenues, and that individuals had access to a more abundant diet. The severe economic crisis of the Great Depression had the opposite effect. With the appearance of sulphonamides in the late 1930s, antibiotics, and residual insecticides and other specific measures at the end of the Second World War, the relevance of economic conditions as a determinant of mortality decline diminished. Although this analysis points to the aforementioned trends, the Cuban experience also suggests that other factors enter into the process of declining mortality and that this phenomenon can only be explained as the result of the complex interplay of many forces. (AU)

77 **D'Souza, S.,** 1981, "A population laboratory for studying disease processes and mortality: the Demographic Surveillance System," Matlab, Comilla, Bangladesh. Special Publication No. 13, Dacca, International Centre for Diarrhoeal Disease Research, Bangladesh, June, 29 pp.

The Demographic Surveillance System in Matlab, Bangladesh, is discussed as a source of data for the study of morbidity and mortality. Some examples of research that has been undertaken using data from the system are presented, with particular reference to the relationship between high mortality and low socio-economic status. (PI)

78 **D'Souza, S., and Bhuiya, A.,** 1982, "Socioeconomic mortality differentials in a rural area of Bangladesh," Population and Development Review, Vol. 8, No. 4, pp. 753-769.

The inverse correlation between mortality and socioeconomic status has been documented in various parts of the developing world. Using 1974 socioeconomic status information from Matlab, Bangladesh, the authors show a similar inverse relationship. Several indicators are used, such as education of household head, mother's education, size of dwelling, and health practices. Socioeconomic status data from a pilot study undertaken in 1981 in five villages from the same area corroborate the result that mother's education provides a striking indicator of mortality levels in young children. (AU)

79 **D'Souza, S., and Chen, L.E.,** 1980, "Sex differentials in mortality in rural Bangladesh," Population and Development Review, New York, Vol. 6, No. 2, June, pp. 257-270.

This study provides conclusive documentation of higher female than male mortality from shortly after birth through the childbearing ages in a rural area of Bangladesh. The higher male mortality rates during the neonatal period are consistent with reports from developed countries; but, whereas in developed countries this higher male mortality risk continues through childhood and adolescence, the differential is reversed during the postneonatal period in Bangladesh, with female mortality exceeding that of males by as much as 50%. Son preference in parental care, and feeding patterns, food distribution and treatment of illness favouring male children are possible causes of such aberrant childhood mortality differences by sex. (AU)

80 **Dutt, J.S.,** 1980, "Altitude and fertility: the confounding effect of child mortality - a Bolivian example," Social Biology, Vol. 27, No. 2, pp. 101-113.

Demographic studies undertaken in several Andean countries have found that women residing at high altitudes have significantly fewer live births than do their low altitude counterparts. This reduction has been explained as being due to various factors: the debilitating effects of hypoxia upon the reproductive system; the effects of sociocultural factors which vary with altitude and which affect reproductive behaviour; and errors in data collection. To examine the validity of some of these hypotheses, the fertility of a group of 906 Bolivian women residing at low, medium, and high altitudes was examined. The women were selected from the lower socioeconomic strata and reported never having used any method of contraception. A detailed analysis of the fertility of these women showed no significant altitude-related differences in the number of live births. However, as a result of significantly higher childhood mortality rates at altitude, there was a significant reduction in numbers of living children. The results of this study suggest that the collection and analysis of census data that ignores socioeconomic differences within a population of differences among census units in neonatal or early childhood mortality may bias or complicate the study of the impact of altitude on human fertility. Although the present research does not prove that hypoxic stress does not affect the reproductive sytem, the results suggest that if altitude does reduce fecundity, the reduction is not great and is likely to be shown only through studies of reproductive physiology. (AU)

81 **Dyson,** T., 1977, "Levels, trends, differentials and causes of child mortality - a survey," World Health Statistics Report, Vol. 30, No. 4, pp. 282-311.

This paper attempts to give an overview of current levels of child mortality prevailing in the world. It also examines trends and socioeconomic differentials in child mortality for selected countries and regions of the world. Last, it reviews data on causes of child death and related environmental factors. (PI)

82 **Eblen, J.**, 1982, "Current assessments and prospects for mortality decline in Africa," paper presented at the 1982 PAA meetings, San Diego, California.

This paper addresses three questions: are projections of a steady decline in mortality too optimistic; if so, should periodic and occasionally sharp declines in mortality be expected during the coming decades; and does sufficient information exist to make better mortality projections? A review of the current situation leads to the conclusion that current projections are probably too optimistic and that sharp declines in mortality in Africa appear to be unlikely over the next few decades. The third question is dealt with in a discussion of the problems of measurement and estimation of mortality and some possible solutions to them and leads to the conclusion that there is sufficient information available to improve mortality projections for Africa. Such information is being exploited by the World Health Organization (WHO) in collaboration with the Department of Demography at the Catholic University of Louvain, in Belgium, and should provide substantially better estimates of recent and current levels, trends, and differentials in mortality in Africa. (AU)

83 **Edmonston, B., and Andes, N.**, 1982, "Community variations in infant and child mortality in Peru: a social epidemiological study," Working Paper No. 12, International Population Program, Cornell University, 21 pp.

Data from the national Peru Fertility Survey are used to estimate infant and childhood mortality ratios, 1968-77, for 124 Peruvian communities, ranging from small Indian hamlets in the Andes to larger cities on the Pacific coast. Significant mortality variations are found: mortality is inversely related to community population size and mortality is higher in the mountains than in the jungle or coast. Multivariate analysis is

then used to assess the influence of community population size, average female education, medical facilities, and altitude on community mortality. Finally, this study concludes that large-scale sample surveys, which include maternal birth history, add useful data for epidemiology studies of childhood mortality. (AU)

84 **Elizaga, J.C.,** 1979, "Mortalidad", en Elizaga, J.C., 1979, Dinámica y economía de la población, CELADE, Santiago, pp. 45-86.

La demografía estudia la mortalidad humana con tres objetivos principales: a) como componente del crecimiento de la población; b) la descripción del proceso de extinción de una cohorte de individuos en función de la edad; c) la explicación de los cambios en el tiempo de la incidencia de la mortalidad y de los diferenciales entre distintas poblaciones y subpoblaciones, ambos en relación con los factores del medio. Las medidas más comunes son la tasa bruta y tasas específicas de mortalidad. Para la descripción de la mortalidad, se estudian los patrones de mortalidad por edades, sexo y causas de muerte. Se analizan los niveles actuales y tendencias pasadas de mortalidad, con especial referencia a los países de América Latina. Atención especial merece el estudio de la mortalidad infantil - o mortalidad de los niños menores de 1 año - que en América Latina alcanzaba una cifra entre 60 y 90 por mil para los años 1966-1970 (p.68). Se discuten los determinantes económicos y sociales de la mortalidad, así como aspectos de la mortalidad diferencial, ya sea según grupos socioeconómicos o según regiones. En forma de anexo, se presentan los métodos comúnmente utilizados para tipificar las tasas de mortalidad; es decir, para eliminar el efecto de diferentes estructuras de edad y facilitar comparaciones. (MF)

85 **Escudero, J.,** 1981, "Democracy, authoritarianism, and health in Argentina," International Journal of Health Services, Vol. II, No. 4.

The democracy-participation-better health versus authoritarianism-repression-worse health polarity is

illustrated by the case of health policy in Argentina. At the turn of the century, Argentina's health levels were among the highest in the world. The subsequent deterioration can be correlated with disruptions of the country's democratic process. The participation of the military in Argentinian political life has produced a lowering of the standard of living of the majortiy of the population, with a consequent increase in mortality and morbidity, and the appearance of elitist, commodity-centred health policies. The antihealth policies of the military are contrasted with those pursued by democratically elected Argentinian governments, as well as the principles set forth in recent declarations of human rights. (AU)

86 **Escudero, J.**, 1980, "On lies and health statistics: some Latin American examples," International Journal of Health Services, Vol. 10, No. 3, pp. 421-434.

New methods of demographic analysis are producing estimates of fertility and mortality which are sometimes at great variance with "official" figures generated by the statistics organizations of the different countries and which are reproduced in international reference books. This discrepancy is greatest with regard to infant mortality. Using Latin American examples, the magnitude of this discrepancy is explored, biases in estimating causes of mortality are identified, and a consideration is made of morbidity figures, which, as they are generated by health care systems with very low coverages of population, tend to seriously under-represent the prevalent levels of disease. A structural interpretation is made of the Latin American situation, linking this crisis of health statistics with a more general crisis of the "developmentist" model under which these systems flourished, and with an upsurge in political repression in the Continent which will tend in future to increase the inaccuracy of "official" health statistics data. Finally, alternative health statistics procedures are proposed. (AU)

87 **Escudero, J.**, 1978, "The magnitude of malnutrition in Latin America," International Journal of Health Services, Vol. 8, No. 3, pp. 465-490.

Malnutrition, an illness that can easily be prevented and cured with existing resources and technology, is perhaps the most widespread disease in Latin America. However, it is unrecognized as such, and those population groups that suffer most from it are most prone to have their sufferings unrecorded. Two factors contribute to this: (a) the inaccuracy and incomplete coverage of vital statistics, as reflected by underregistration of deaths, insufficient medical certification of registered deaths, and biases both among certifying physicians and in the International Classification of Diseases; and (b) low population coverage by the health care systems and, thus, by the statistics which they generate. These factors are related to the ideological bias of those statistical systems and to the concepts of causality which they use.

Through a review and analysis of "ad hoc" studies on the frequency of malnutrition in Latin America and its incidence in relation to morbidity and mortality, an estimation is made of malnutrition-caused deaths, which would amount to almost one-fifth of deaths from all causes. As overall availability of food in Latin America is adequate, it is held that this continent ultimately has the level of malnutrition that it wishes to have. (AU)

88 **Ewbank, D.,** 1982, "The sources of error in Brass's method for estimating child survival: the case of Bangladesh," Population Studies, Vol. 36, No. 3, November, pp. 459-474.

Brass's method for estimating child mortality is based on an ingeniously simplified model. However, it frequently leads to values of q(x) that are not consistent with each other. This is most obvious for estimates of q(1). This paper examines the extent to which such inconsistencies are caused by simplifications in the model. Three assumptions are relaxed by adjusting for differences in infant mortality by birth order, taking account of annual fluctuations in mortality, and using a different age pattern of fertility for each cohort. These adjustments are applied to data from the 1974 Bangladesh Retrospective Survey of Fertility and Mortality and the 1975 Bangladesh Fertility Survey in which additional data from the Cholera Research Laboratory are used. The resulting estimates are more consistent both internally and with estimates from other surveys and by other procedures. (AU)

89 **Farah, A., and Preston, S.,** 1982, "Child mortality differentials in Sudan," Population and Development Review, Vol. 8, No. 2, pp. 365-383.

Two microdata sources are used to describe major dimensions of child mortality variation in Sudan. The first, a sample of household records from the 1973 Census of Population, reveals an extraordinarily strong regional variation in mortality levels even after controlling for certain conventional household socioeconomic indicators. These regional differentials suggest the importance of the macroenvironment of disease for understanding sources of variation in Sudanese mortality. The second data source, a survey of Khartoum conducted by John Caldwell, contains a much richer set of independent variables.

This "analysis shows a strong intergenerational influence on child mortality that works primarily through mother's years of schooling; an important role for assortative mating, particularly that involving cousin marriages; and very sharp differentials in child mortality according to mother's years of schooling and husband's income. The hypothesis that mother's education influences child mortality by alternating her status in the family was not supported." (PI)

90 **Farren, M.,** 1978, "Uruguay: tendencias y causas de mortalidad, 1955-1975", CELADE, mimeo.

El estudio comprende: una introducción general; evalúa la calidad de los datos, concluyendo que son aceptables; analiza las tendencias de mortalidad por edad y sexo, destacándose el hecho de que la tasa de

mortalidad ha bajado durante el período, habiendo aumentado sólo para el grupo de 75 años y más, y en general, se da una supermortalidad masculina; analiza la mortalidad por causas, señalando que los mayores porcentajes de defunciones son atribuibles a enfermedades del sistema nervioso y circulatorio, y de los tumores; compara el peso relativo de las defunciones "evitables" y "no evitables", concluyendo que las primeras constituyen una minoría del total, que bajó durante el período. Finalmente, en los anexos, se presenta la metodología utilizada para efectuar las estimaciones que sirven de base para el estudio. (DOCPAL)

91 **Fauve-Chamoux, A.**, 1981, "Les aspects culturels de la mortalité différentielle des enfants dans le passé," in International Union for the Scientific Study of Population, International Population Conference, sollicited papers, Manila, Vol. 2, pp. 341-361.

The author identifies religion and feeding habits as the cultural factors having the greatest influence on infant mortality differentials in the past. The importance of child-rearing activities such as the amount of time devoted to the child, type of care and food given, attention given to play activities, and activities designed to promote the child's intellectual development is noted, but the author identifies maternal nursing habits as the key factor affecting the unweaned child's survival. (PI)

92 **Feeney, G.**, 1980, "Estimating infant mortality trends from child survivorship data", Population Studies, Vol. 34, No. 1, pp. 109-128.

Se presenta un nuevo método para estimar la mortalidad infantil en base a la información censal sobre hijos nacidos vivos y sobrevivientes. Este método proporciona valores de las tasas en distintos puntos del tiempo, en lo que se diferencia del método desarrollado por Brass, cuyo supuesto era la mortalidad constante. La base teórica es la misma en que se apoya el método de

Brass, pero en lugar de adoptar un modelo de mortalidad de un parámetro, se toma un modelo de dos parámetros, en que uno corresponde al nivel de la mortalidad, definido por el valor de la mortalidad infantil q_0, y el otro a la tasa de descenso r de la mortalidad, conocida la distribución de la fecundidad. Se llega así a un sistema de ecuaciones, una para cada grupo de edad de la madre, con dos incógnitas. A cada valor de la tasa de mortalidad infantil corresponde un valor de la tasa de crecimiento, dando determinada tendencia a la mortalidad. La intersección entre dos líneas de tendencia determinan un valor de la tasa para cierto número de años antes del censo; la tasa estimada es la que corresponde al valor de r=U. Los valores de la tasa de mortalidad infantil y el número de años anteriores al censo, por grupos de edad de la madre, se han tabulado para distintos valores de la proporción de hijos fallecidos y del parámetro s, que representa la distribución de la fecundidad. Este método tiene la ventaja de que permite aprovechar la información de sobrevivencia de hijos de las mujeres de 15 a 74 años, lo que significa una serie de 12 estimaciones desde aproximadamente 30 años antes del censo. Se presentan aplicaciones a Costa Rica y Malasia. (DOCPAL)

93 **Ferreira, C.**, 1980, "Tábuas abreviadas de mortalidade para o Estado de São Paulo 1939/41, 1949/51, 1959/61, 1969/71" en: Informe Demográfico No. 4, SEADE, São Paulo, pp. 1-43.

Las tablas abreviadas de mortalidad para el Estado de São Paulo son la resultante de la aplicación de las probabilidades de morir, estimadas a partir de los índices transversales observados, a una generación ficticia de 100 mil nacimientos. Esta asumirá el comportamiento de la mortalidad de las generaciones observadas en 1939/41, 1949/51, 1959/61 y 1969/71. Entre los resultados más importantes destacan: a) la reducción rápida de los incrementos en la esperanza de vida al nacer en los intervalos censales, especialmente en la población masculina la que, entre 1960-1970, presentó una ganancia de sólo 0.28 años (p.39); b) un aumento gradual del diferencial de mortalidad entre los sexos; c) un aumento proporcional mayor de los índices sobre mortalidad masculina de la población activa, en

comparación con los índices de la población infantil; d) entre 1960-1970, la mortalidad de la población masculina en edad activa permanece constante, observándose una disminución de los niveles en la población femenina. (DOCPAL)

94 **Fildes, V.,** 1980, "Neonatal feeding practices and infant mortality during the 18th century," Journal of Biosocial Science, Cambridge, England, Vol. 12, No. 3, July, pp. 313-324.

The author presents the results of an analysis of 51 texts and manuscripts written between 1500 and 1800 by physicians and midwives on the first food of infants. It is hypothesized that the primary cause of the substantial decrease in infant mortality between the 17th and 19th centuries in England and Wales is related to a radical change in the ideas, advice, and practice of neonatal feeding. (PI)

95 **Flegg, A.,** 1982, "Inequality of income, illiteracy and medical care as determinants of infant mortality in underdeveloped countries, "Population Studies, Vol. 36, No. 3, November, pp. 441-458.

The primary purpose of the paper is to explain the differences in infant mortality rates for a sample of 46 underdeveloped countries. The study differs from earlier research in this field in the following respects. First, an attempt is made to include explanatory variables that have some bearing upon policy discussions. Second, considerable attention is devoted to the correct specification of the regression equation. Third, an attempt is made to assess the sensitivity of the estimates to changes in (a) the composition of the sample and (b) the observations on infant mortality. Fourth, the data employed in the study appear to be somewhat less inaccurate than the figures which have been used elsewhere.

The most satisfactory empirical results are obtained from a logarithmic model, in which the illiteracy rate for women (I), nurses per head of population

(N), physicians per head (P), and the coefficient of variation (V) - a measure of inequality of incomes - appear as explanatory variables. The results for this model indicate that 73% of the intercountry variation in the logarithm of the infant mortality rate (log D) can be explained by differences in log I, log N, log P, and log V. It is worth emphasizing that the estimated parameters of this model are found to be fairly precise and robust, in contrast to the results obtained in earlier studies.

An important finding which emerges from the econometric analysis is that the stage of economic development per se appears not to have a direct impact upon infant mortality. Another finding of considerable interest is that the results fail to uphold the hypothesis that high fertility is a cause of high infant mortality. It is also worth mentioning that infant mortality appears to be more sensitive to variations in the share of the exceptionally rich than to changes in the share of the comparatively poor.

An examination of the policy implications of the model reveals that D may be expected to be very sensitive to changes in I, P, and V. It is concluded that a rapid fall in the infant mortality rates of underdeveloped countries will not be achieved unless geater emphasis is placed upon reducing inequality of incomes and augmenting the social infrastructure. (AU)

96 **Frenzen, P., and Hogan, D.,** 1982, "The impact of class, education, and health care on infant mortality in a developing society: the case of Rural Thailand," paper presented to 1982 PAA meetings, San Diego, California, 26 pp.

Demographic and social factors affecting infant mortality in rural Northern Thailand are examined using log-linear modified multiple regression models and data drawn from a representative sample of married couples in Chiang Mai and Chiang Rai provinces. Demographic factors do not account for the effects of variations in parental ability or willingness to provide adequate infant care. The final model estimated incorporated both of these social dimensions of infant care. Paren-

tal ability, measured by father's social class, mother's education, and mother's level of health information, continued to have significant independent effects upon infant survival. Parental willingness, measured by parent's beliefs about intergenerational wealth transfers, no longer had a significant effect once variations in parental ability to provide adequate care were taken into account. (AU)

97 **Frerichs, R., Becht, J., and Foxman, B.,** 1979, "Health and illness in rural Bolivia: a household survey", University of California at Los Angeles, School of Public Health, 88 pp.

La encuesta de salud y morbilidad realizada en 1977 en una región rural de Bolivia (Montero) abarcó una muestra de 605 hogares y 3,372 personas (p. 7, 9, 13). La entrevista recogió información demográfica general, así como una descripción de los episodios de morbilidad ocurridos en las dos semanas anteriores. El 52% de población es menor de 15 años (p.13) y el analfabetismo alcanza al 18% de los hombres y a más de la mitad de las mujeres adultas (p.3). La tasa de fecundidad fue de 277.6 por mil en 1977 (p.18) y 8 de cada 10 partos se atendieron en el domicilio. Del total de 39 muertes ocurridas, 21 correspondieron a menores de 1 año (p.15). El 42% de la muestra informó de algún episodio de morbilidad y casi la mitad de los mismos correspondió a enfermedades respiratorias y gastrointestinales (p.26). En el 21% de los casos, se solicitó atención médica, la que recayó, en su gran mayoría (70%) en profesionales médicos (p.28). Más de dos tercios de los gastos en que incurrió la población se adscribe al rubro medicamentos y sólo 15% al pago de honorarios (p.30). La desnutrición es común entre los menores de 4 años: 12.5% de los niños y 20.4% de las niñas exhibe un peso inferior al normal, y el 36.7% de los niños y el 37.3% de las niñas, una talla inferior para su edad (p.42, 43). (DOCPAL)

98 **Fundação de Informações para o Desenvolvimento de Pernambuco,** 1981, "Informações demográficas de Pernambuco; avaliação de sub-registro de óbitos en Pernambuco e Recife, 1973-1978", Fundação de

Informações para o Desenvolvimento de Pernambuco, 42 pp.

La aplicación de la técnica de Courbage y Fargues muestra que las estadísticas de defunciones del Estado de Pernambuco son deficientes pero que en los últimos años se produce una mejoría notoria en la cobertura alcanzada. Así, el nivel de sub-registro para la población masculina de un año y más desciende del 60% en 1973-1975 al 30% en 1976-1978, mientras que para la población femenina se reduce del 40% al 20% en el mismo período. Los datos corregidos a partir de los índices derivados de la aplicación de la teoría de Courbage y Fargues revelan que las tasas de mortalidad infantil del Estado son más elevadas, alcanzando a 138.3 por mil entre 1976-1978. En ese mismo período, las defunciones de menores de un año representaron el 38.5% del total de las defunciones (p.34). En Recife, estas cifras revisten una menor magnitud. Entre 1973-1978, la tasa bruta de mortalidad disminuyó de 14.9 a 12.3 por mil en Pernambuco, y de 8.9 a 7.8 en Recife, en parte como resultado de una tendencia a la disminución en la mortalidad infantil juvenil (p.35). (DOCPAL)

99 **Fundação Sistema Estadual de Análise de Dados, (SEADE, São Paulo)**, 1980, "Níveis e padrões de mortalidade en São Paulo", Informe Demográfico, No. 4, 250 pp.

El estudio de los niveles y patrones de mortalidad del Estado de São Paulo reúne tres trabajos centrados en: a) la construcción de tablas abreviadas mediante la aplicación de probabilidades de morir, estimadas a partir de los índices transversales observados, a una generación ficticia de nacimientos; b) análisis de la mortalidad por causas evitables para 1975-1976 y construcción de tablas abreviadas con el objeto de establecer las ganancias en la esperanza de vida derivadas de la eliminación hipotética de dichas causas; c) una descripción detallada de la mortalidad regional y de los diferenciales observados a través de la construcción de tablas para cada una de las 11 regiones del país. (DOCPAL)

100 **Gaisie, S.,** 1979, "Some aspects of socioeconomic determinants of mortality in Tropical Africa," paper presented at, WHO meeting on socio-economic determinants and causes of mortality, Mexico, June, pp. 19-25, (c.f. Population Bulletin of The United Nations, 1980, No. 13, pp. 16-25.)

Mortality is one of the major determinants of population growth and the modern drive to decrease the death rate is being blamed for the rapid expansion of population in tropical Africa. Yet measurements of mortality levels and trends are still inadequate in that region of the world, largely owing to the lack of reliable and adequate information on deaths. A series of estimates depicting mortality levels and trends has been prepared by demographers, using different kinds of data and employing different estimation procedures; nevertheless, knowledge about the "true" structure of mortality in tropical Africa is virtually nonexistent. It is also important to point out that a very limited number of concrete studies have been conducted in respect of determinants of mortality in tropical Africa. Thus, one can scarcely do justice under these conditions to such a wide topic, covering the entire area of tropical Africa. In view of these difficulties, what is presented in the present article is a bird's eye view of the prevailing situation in tropical Africa, most of the discussion being based on secondary and fragmentary data. The article discusses mortality by sex and age, by residence and by cause. It also discusses socioeconomic and cultural determinants of mortality. (AU)

101 **Gaona de Godoy, O., y Miranda, H.,** 1981, "Atención materno-infantil" en: Paraguay, Dirección General de Estadística y Censos, pp. 104-124.

Entre 1976-1980 se produce una consolidación de los programas materno-infantiles en Paraguay ampliándose el grado de protección prestado a la población. De las 2,562 mujeres alguna vez embarazadas incluídas en la Encuesta Nacional de Fecundidad de 1979, el 80.3% que ha tenido una gestación recibió control durante su embarazo. En cuanto al último embarazo, el 79.4% de

mujeres recibió atención en su mayoría profesional. Las proporciones más elevadas de mujeres que no controlaron su embarazo corresponden a aquellas entre 15-19 años y entre 45-49 años, constatándose además un deterioro de la atención en las zonas rurales y entre las mujeres con escasa educación (p.107). El 51% de los partos ocurrió en el domicilio de la gestante, cifra algo superior a la información oficial, que estima que el 62.6% de los partos se atendió en instituciones de salud (p.111). De los 2,682 nacidos vivos, el 70.1% recibió atención profesional, cifra que se ajusta a los planes de cobertura del Ministerio de Salud (p.114).(DOCPAL)

102 **Giraldelli, B.**, 1980, "A mortalidade nos 11 regiões administrativas do Estado de São Paulo: tábuas de mortalidade 1970/71" en: Fundação SEADE, *Informe Demográfico*, No. 4, pp. 107-250.

Las tablas de mortalidad para las 11 regiones administrativas del país son el resultado de un análisis transversal donde las probabilidades de morir fueron estimadas a partir de índices observados, aplicados a una generación ficticia de 100 mil nacimientos, que asumirá el comportamiento estudiado entre 1970-1971. Los resultados obtenidos permiten caracterizar las diferencias regionales de la mortalidad de la siguiente manera: a) la presencia de una diferencia de 5.15 años entre la mayor (San José de Río Preto) y la menor (Valle de Paraiba) esperanza de vida registrada (65.49 y 60.34 años respectivamente); b) la mayoría de las regiones registra una esperanza superior a la del Estado de São Paulo (62.96 años); c) la mayor probabilidad de muerte infantil corresponde a Paraiba (88.21 por mil) y la menor a Riberao Preto (58.87 defunciones), reflejando las grandes diferencias regionales (p.235); d) los mayores índices de sobremortalidad masculina en la población en edad activa corresponden a la capital del Estado (1.69), al litoral (1.68) y a Rio Grande Sao Paulo (1.64) (p.238); e) la mayor esperanza de vida masculina (63.13 años), ubservada en San José de Río Preto, es mayor que la menor esperanza de vida femenina (63.23), observada en Sorocaba (p.239). (DOCPAL)

103 Gish, O., 1979, "The political economy of primary care and 'Health by the people': an historical exploration," Social Science and Medicine, Vol. 13c, pp. 203-211.

The historical development of personal health services within the Third World, as background to the current discussion of primary health care and so-called "health by the people" efforts, is reviewed. This development is located within broader societal relationships, both at the national and at the international levels. It is argued that most of the Third World is in a state of advanced crisis characterized by static or even worsening life conditions for the mass of the population of those countries. The roots of this crisis lie in the colonial period, but contemporary national and international relationships are perpetuating essential characteristics of the inherited health care and other systems. Partly in response to this growing crisis, the narrow emphasis on growth of national product as the primary solution to underdevelopment has been largely replaced, at least in international discussion, by an approach that requires the meeting of everyone's basic human needs. In the health sector, primary health care and/or "health by the people" is perceived as the major vehicle for this. The paper examines some of the issues involved in the development and application of these concepts. It is concluded that in the Third World improved health in not primarily a matter of medical systems, but rather a broader question requiring better understanding of the nature of underdevelopment itself. As a consequence, all activities concerned with health must begin with the specifics of underdevelopment in particular circumstances. Only from this background will it be possible to come to grips with the issues of improved health status as well as more relevant health and medical services in the Third World. As long as it remains essentially impossible to deal seriously with existing social and property relations, so long will it remain impossilbe to alter significantly the health status of the world's poorest, say, 1 billion people. (AU)

104 Goldberg, H., and Anderson, J., 1982, "Infant mortality and breastfeeding in Northeastern Brazil,"

paper presented at 1982 PAA meetings, "Mortality session," San Diego, 16 pp.

The extent to which the health of infants is adversely affected by the failure of mothers to breast-feed is an issue that has not been conclusively resolved. In this paper, data from a survey of 7,852 women in four states of northeastern Brazil are examined to determine whether children who are never breast-fed are more likely to die in infancy than those who are breast-fed. In this region of high infant mortality, where many babies are never breast-fed, children bottle-fed from birth are substantially less likely to survive than their counterparts, even when socioeconmoic variables and use of maternal-child health services are taken into account. The breast-feeding-mortality relationship is significant only in rural areas, however, and is most marked among children of poorly educated women. These results lend support to the hypothesis that, at least among some populations, failure to breast-feed is detrimental to infant health. (AU)

105 **González, G.**, 1980, "La transición demográfica en Brasil, Costa Rica, Cuba y Chile", en González, G., Estrategia de desarrollo y transición demográfica; los casos de Brasil, Costa Rica, Cuba y Chile, mimeo, CELADE.

Descripción de las trayectorias seguidas por la transición demográfica en Brasil, Costa Rica, Cuba y Chile. Al comparar los cursos seguidos por la transición demográfica en los 4 países se comprueba que, mientras la trayectoria del cambio seguida por la tasa bruta de mortalidad es relativamente semejante en todos ellos, las trayectorias de la natalidad difieren notablemente. El comienzo de la tendencia descendiente de la fecundidad de Cuba podría datarse en el primer quinquenio de la década del 20. En Chile la tasa bruta de natalidad muestra su primera caída durante la década del 30, para luego volver a descender aún más a partir de los años 60. En Costa Rica el descenso empieza a partir de 1960, primero lentamente y luego en forma acelerada. Brasil es el país para el que se dispone de menos información confiable en cuanto a la trayectoria de la fecundidad. Se estima que el país ha experimentado un lento pero sostenido descenso a partir de la década del 30. Se presenta un análisis social y regionalmente desagregado, tanto de la mortalidad como de la fecundidad, para cada uno de los países. (DUCPAL)

106 **González, N., Infante, A., y Mardones, F.**, 1980, "Análisis del impacto de la atención primaria de salud sobre los indicadores de salud y nutrición, Chile 1969-1978", Revista Pediatría, Hospital Roberto del Río, Vol. 23, abril-diciembre.

Una revisión de algunas de las acciones de Atención Primaria de Salud en Chile - con énfasis en el Programa Nacional de Alimentación Complementaria - revela en conjunto un aumento sostenido de ellas, particularmente durante la última década. Ello se asocia con un mejoramiento de los indicadores de salud y nutrición, lo que adquiere mayor relevancia cuando se aprecia que la disponibilidad de alimentos per cápita no ha mostrado una tendencia creciente. El rol del Servicio Nacional de Salud - principal responsable de la Atención Primaria de Salud en Chile - queda manifiesto. Sin embargo, es notorio que es necesario mejorar la cobertura y calidad de algunas acciones para obtener mayores éxitos. (AU)

107 **Gortmaker, S.**, 1979, "Poverty and infant mortality in the United States," American Sociological Review, Vol. 44, pp. 280-297.

This paper examines the theoretical and empirical relationship of income poverty to infant mortality differentials in the contemporary United States. Using national data gathered in 1964-65, this study estimates the relative impact of a variety of biological, social, and economic factors upon the risk of infant death. Methods for the analysis of multidimensional contingency tables permit the combination of birth and death data, and coefficient estimates from these models provide estimates of the relative risks of infant death observed in various subpopulations.

Within the white population of legitimate births in

1964-65, coefficient estimates indicate that poverty is associated with relative risks of neonatal and postneonatal mortality 1.5 times greater than that experienced by infants not born in poverty, independent of a variety of maternal and familial characteristics and the birth weight of the infant. Hospital care during the neonatal period, however, appears to attenuate this increased risk for some high-risk infants. The estimated direct effects of poverty upon infant mortality are larger than the effects of poverty mediated by the birth weight of the infant. The persistence of poverty and the continuing unequal distribution of health care resources to pregnant women and young mothers in the United States imply the reproduction of these differentials to the present day. Increasing access to the health services and increased help to families through income supports and employment programs are indicated as possible policy actions to reduce these differentials. (AU)

108 **Grosse, R.**, 1980, "Interrelation between health and population: observations derived from field experiences," Social Science and Medicine, Vol. 14c, pp. 99-120.

This paper presents information and concepts concerning the health of populations in LDCs as background for discussions of more focused and detailed papers on these and related subjects.

It begins with a review of a health status and trends in developing countries since 1950, followed by a section identifying the major health problems and their causes.

The third part includes analyses of associations between health resources, water and sanitation facilities, food availability, and economic and social indicators taken as independent variables and measures of health status - life expectancy, crude death rates, and infant mortality - as the dependent variables.

The final section discusses health policies and their implementation and offers an analysis of the resource requirements and health effects of different methods of organizing and combining health programs in a few developing countries. The objective is to illustrate a method of determining preferred activities at any given level of investment and the probable health effects of varying increases in the level of health expenditures. (AU)

109 **Grosse, R., and Harkavy, O.**, 1980, "The role of health in development," Social Science and Medicine, Vol. 14c, pp. 165-169.

The basic needs strategy of development is directed toward helping poor nations meet requirements for adequate food, shelter, sanitation, health, and education: thus, health becomes an objective of development. At the same time a basic needs strategy is most effective when viewed as a means to increase individual and national productivity not merely as a welfare services program. Expenditures on health are considered as an investment in human resources, contributing to productive capacity, but empirical studies on the contribution of health to per capita economic growth are largely anecdotal, marred by poor design and insufficient data. A similarly perplexing problem is the extent to which improved health is the result of specific health program interventions as compared to improved economic and social conditions. Both are important but their relative importance differs from country to country, and from era to era. Better data and analysis are necessary, not only to elucidate the interrelationships between health and development, but to measure the costs and benefits of specific health interventions. (AU)

110 **Guerra, F.**, 1981, "Determinantes de la mortalidad infantil en Panamá (1940-1974)", Santiago, CELADE, 87 pp., tbls., gráfs, (Serie D 99), presentado en: "Seminario de análisis y capacitación de la Encuesta Mundial de Fecundidad", Santiago, 32 ref.

El estudio de los determinantes de la mortalidad infantil en Panamá forma parte de los trabajos del seminario de análisis y capacitación con los datos de la Encuesta Mundial de Fecundidad y tiene como base empírica principal una muestra de 12283 nacidos vivos

entre 1940-1974 (p. 17). A través de 3 capítulos se, examinan: a) las tendencias generales de la variable, así como los principales factores asociados a la misma entre 1952-1978; b) las características de la mortalidad infantil y sus determinantes demográficos y biológicos, socioeconómicos y ambientales, a partir de los datos de la Encuesta de Fecundidad (1978); c) un modelo de clasificación de algunas variables seleccionadas de la madre y de las condiciones de la vivienda, elaborado por el estudio de los diferenciales de la mortalidad infantil. (DOCPAL)

111 **Guerra, F.**, 1980, "Relación entre mortalidad infantil y fecundidad en Panamá", CELADE, Santiago, Chile, 18 pp., en: "Seminario de análisis y capacitación de la Encuesta Mundial de Fecundidad", Santiago.

Esta primera parte del estudio de las relaciones entre mortalidad infantil y fecundidad en Panamá se centra en la evolución de la mortalidad general e infantil entre 1950-1978, así como en algunos de los factores asociados a la misma. Entre 1952-1978, se registra un descenso mantenido de la mortalidad general (de 8.4 a 4.5%) como resultado de una mayor cobertura de los servicios sociales (salud, educación) y la incorporación de las comunidades al proceso de desarrollo nacional. Los elevados índices de omisión de las defunciones de menores de 1 año dificultan la medición exacta de la mortalidad infantil, produciéndose una alza en las tasas entre 1952-1959, producto de una mejora en los registros. El mayor descenso se evidencia entre 1970-1978, con cifras de 40.5 y 24.5 por mil respectivamente. Entre 1966 y 1976, las diferencias según área de residencia se reducen de una sobremortalidad de 41% a 20% en las áreas rurales respecto a las urbanas. Los mayores logros corresponden a la mortalidad post-neonatal, que descendió en un 39% en tanto que la neonatal lo hizo sólo en 24% (p. 11). Entre los factores más directamente asociados a la declinación descrita se destacan, en el caso de la mortalidad post-neonatal, el aumento en los niveles educacionales y su influencia en los hábitos de higiene alimenticios, y el incremento en la atención profesional del parto en la mortalidad neonatal. (DOCPAL)

112 **Guerra, F.**, 1979, "El problema de la desnutrición en Panamá", en: Guerra, F., "Necesidades de alimentos de la población, en la República de Panamá, por provincia: años 1975, 1980 y 1985, Panamá, Panamá, Ministerio de Salud, Avances de Investigación, Vol. 2, 1, pp. 20-34.

En Panamá, la desnutrición constituye un problema serio, resultado de una disponibilidad deficiente e inadecuada de alimentos, de una capacidad económica insuficiente para su adquisición y de un bajo nivel de educación y/o actitudes que entorpecen la selección de una dieta adecuada. El problema se agudiza frente a las enfermedades transmisibles frecuentes, que elevan los índices de mortalidad por esas causas. Entre 1966-1974, las tasas de mortalidad infantil han descendido de 45 a 33 por mil, observándose una reducción de un 28.5% en las tasas de mortalidad post-neonatal por mejoras en las condiciones ambientales. La declinación que se observa en la tasa de mortalidad neonatal (un 25%) se asocia a la mayor y mejor atención del parto (p. 26, 27). La escasez de agua potable, la falta de alcantarillado y el elevado porcentaje de viviendas insalubres, además de la desnutrición, se reflejan en las principales causas de muerte en la niñez: enteritis y otras enfermedades diarreicas, tos ferina, tétano, sarampión, avitaminosis y neumonía. (DOCPAL)

113 **Guttmacher, S., and Danielson, R.**, 1977, "Changes in Cuban health care: an argument against technological pessimism," International Journal of Health Services, Vol. 7, No. 3, pp. 383-400.

Since the popular revolution in 1959, alterations in the organization and delivery of health care in Cuba have paralleled the country's broader political, economic, and social changes. This paper discusses the evolution of the Cuban health care system during the past 17 years within the wider context of societal development. The authors compare three "snapshots" of Cuba, the first in 1959, the second in 1970, and the last in 1976, and touch upon such issues as the organization of health care delivery, the recruitment and socialization of health workers, and aspects of the

process of receiving health care. They point out that the Cuban experience should be of particular interest to the developing world. For although it is true that a larger portion of Cuban national resources has been directed to the health and social services than in other developing countries, nonetheles, it was largely through the reorganization and equalization of the prerevolutionary health care system that improvement in the health status of the population was achieved. It appears that Cuba could well serve as an example for those who are skeptical about the possibility of combining technical development with improvement in the humane quality of care. (AU)

114 **Gwatkin, D.,** 1980a, "How many die? A set of demographic estimates of the annual number of infant and child deaths in the world," American Journal of Public Health, Vol. 70, No. 12, December, pp. 1286-1289.

Estimates concerning the annual number of infant and child deaths in the world range from around 15 million to well over 30 million. Although infant and child mortality is difficult to measure with any precision, the range of uncertainty can be narrowed considerably through the application of standard demographic techniques to readily available population data. A set of estimates based on the most recent and authoritative data compilations points to a range of from 12 to 13 million to about 17-18 million infant and child deaths annually during the late 1970s with an average of around 15 million. On the basis of what is known about mortalilty conditions of the world today, a figure much larger than the 17-18 million at the high end of this range would be extremely difficult to substantiate. (AU)

115 **Gwatkin, D.,** 1980b, "Indications of change in developing country mortality trends: the end of an era?" Population and Development Review, Vol. 6, No. 4, December, pp. 615-644.

Recent information points to noticeable changes in the pace and pattern of mortality decline in major parts of the developing world. A sharper slowing of progress against mortality than would have been expected on the basis of European experience has been reported in many developing areas; and there are signs of increasing diversity among countries. The change appears related to a decline in the capacity of health programs to deal with evolving developing world disease problems and the slowdowns with respect to several aspects of social and economic progress of particular relevance for mortality decline. Such developments raise the question of whether the era of an unprecedentedly rapid developing country mortality declines is approaching an end. (PI)

116 **Gwatkin, D., Wilcox, J., and Wray, J.,** 1980a, "Can health and nutrition interventions make a difference?" Manuscript No. 13, Overseas Development Council, Washington, Feb., 76 pp.

The authors describe and evaluate the general characteristics and reported results of 10 direct intervention efforts, one in the United States, and the rest in developing countries that sought both to reduce infant and child mortality in poor rural areas and to keep adequate records. Six of the projects were concerned with the physical growth of children and four included family planning and fertility reduction components. (PI)

Asserts that in populations of up to 70,000, well-designed and effectively operated projects can reduce infant and child mortality rates by one-third to one-half or more within 1-5 years. (MF)

117 **Gwatkin, D., Wilcox, J., and Wray, J.,** 1980b, "The policy implications of field experiments in primary health care and nutrition care," Social Science and Medicine: Medical Economics, Vol. 14c, No. 2, pp. 121-128.

Is the experience to date with health and nutrition interventions encouraging enough to justify augmented efforts to make primary nutrition and care available to all? If so, what can be learned from that experience about how best to make primary care widely available?

A review of 10 pilot projects that provide simple health and nutrition services and that kept data adequate to permit an assessment of their effectiveness suggests that mortality declines were notably more rapid in a clear majority of the project sites than would have been expected in the projects' absence. Although the data cannot be considered fully reliable or completely unambiguous, when taken as a whole they present a persuasive case that, in the hands of able administrators and in populations of up to 70,000 infant and child mortality can be reduced by 33%, 50%, or more within 1-5 years, at a cost of under the equivalent of 2% of per capita incomes.

Among the particularly promising program components were maternal food supplements, maternal immunization against tetanus, nutrition monitoring, and greater reliance on paramedical personnel. At least equally important was the effectiveness and sensitivity with which the particular components selected, whatever they may have been, were implemented and administered.

The experience of the projects reviewed indicates that primary health and nutrition care is potentially capable of helping make a substantial difference in infant and child mortality levels. The need now is to deal effectively with the challenges involved in developing large-scale programs capable of translating that potential into reality. (AU)

118 Habicht, J., and Behrman, P., 1980, "Planning primary health services from a body count?" Social Science and Medicine, Vol. 14c, pp. 129-136.

We were asked to comment on two other papers in this series. One using statistical simulation techniques to identify effective health care interventions permits us to discuss some common statistical and logical mistakes which result in wrong prescriptions. These include the old chestnuts of mixing apples with pears into aggregate measures of health and of assuming that a chain of causes is a causal chain. The other article reviews the utility of actual health care programs and touches on community and organizational factors that make or break otherwise well-designed health care interventions. We now have the silver bullets of disease prevention and cure to fell most of the werewolves of ill health in developing areas. However, we lack the rifles to fire these bullets. Another article in this series exhorts us to polish the bullets we have and make more of them. We feel the rifles are more urgent. (AU)

119 Haines, M., and Avery, R., 1982, "Differential infant and child mortality in Costa Rica: 1968-1973," Population Studies, Vol. 36, No. 1, March, pp. 31-43.

In this paper the authors attempt to analyze the correlates of differences in infant and child mortality in Costa Rica for the period 1968-73. One approach uses small geographical units (cantons) as the unit for multivariate analysis, employing both single and simultaneous equation models. A second multivariate approach uses individual level statistics along with a specially constructed dependent variable. Costa Rica is studied because of an interest in differential child mortality during rapid fertility decline. Among the major findings are a strong favourable effect of provision of medical services on child mortality. Education of women remains important at both levels of analysis. Sanitation and level of socioeconomic well-being have a weaker but important effect. Fertility and mortality appear to have a significant simultaneous causal interaction. Both 'exogenous' and 'endogenous' development-related factors appear to play a role in determining differences in child mortality. (PI)

120 Haines, M., Avery, R., and Strong, R., 1981, "Differentials in infant and child mortality and their change over time: Guatemala, 1959-1973," paper presented at the 1981 PAA Meeting, "Infant and child mortality in developing countries" session.

The authors use 5% samples of the Guatemala censuses of 1964 and 1973 to estimate infant and child mortality by geographic region, rural or urban residence, ethnic group (indigenous versus Ladino), and level of education of mother. For 1973, conventional methods of indirect estimation can be applied; for 1964, a modification of the Preston-Palloni technique is applied.

A major result is that differentials widened appreciably between about 1959 and 1968. It is suggested that factors that led to declines in childhood mortality during the 1960s were unequally spread by geographic region, ethnicity, urban-rural residence, and educational group. Guatemala city seems to have benefited most from the decline. Multivariate analysis for small geographic units also suggests that the same socioeconomic and demographic factors that were successful in explaining the differentials for 1968 were relatively unsuccessful in explaining the differentials for 1959. The uneven spread of public health, sanitation improvement, and medical care is suggested as a plausible hypothesis to explain these differences. (PI)

121 **Heller, P., and Drake, W.,** 1979, "Malnutrition, child mortality and the family decision process, Journal of Development Economics, Vol. 6, December, pp. 203-235.

This paper suggests a microeconomic model of the process by which infants and toddlers are subject to malnourishment, diarrhea, and other illnesses in developing countries. It is econometrically estimated on a cross-section, time-series basis for 1,200 children from Candelaria, Colombia. The model focuses on four issues: (a) the impact of economic constraints and intrafamily resource allocation decisions on a child's nutritional and health status; (b) the interrelationship between malnutrition, diarrhea, and other diseases; (c) the impact on health and nutritional status of specific policy interventions (maternal-child health education, food supplementation and the encouragement of breast feeding); and (d) the importance of distinguishing between the effect of different policy variables on a child's height and weight during this period. (AU)

122 **Hill, K., and Zlotnik, H.,** 1982, "The application

of indirect methods for mortality estimation," Washington, D.C., National Academy of Sciences, mimeo.

This paper describes briefly four indirect methods of adult mortality estimation. The methods discussed are Preston's Intercensal Method of Mortality Estimation, the Preston-Coale Method (to estimate the completeness of death registration), and methods based on (a) orphanhood information and (b) widowhood information. Of these four methods only the Preston Intercensal Method does not postulate the hypothesis of unchanging mortality conditions.

The authors note that the four methods presented do not exhaust the set of the techniques now available for mortality estimation, but indicate that they do constitute a good approximation to a representative sample of the acutal state of the field and are well suited to illustrate the practical aspects of indirect demographic estimation. Brazil and Colombia are used as case studies for illustration purposes. (MF)

123 **Hobbs, F., and Arriaga, E.,** 1982, "A critical examination of infant mortality estimation techniques applied to Peruvian data," in United States Bureau of the Census, "Techniques for estimating infant mortality," International Research Document No. 8, Washington, D.C., pp. 9-20.

This paper compares infant mortality levels and differentials as estimated by (a) direct calculation using data on births and infant deaths from birth history information, (b) an estimation procedure using information on births in the past 12 months and current survival status, and (c) the indirect estimation procedure based on reported proportions of surviving children by age of mother.

No firm conclusions about the techniques can be drawn from the pattern of the differentials in the case of the Peruvian data under study. The authors suggest the need for a more detailed analysis of the causes of possible biases in the different procedures to evaluate better the relative merit of each of the methods for estimating both levels and differentials in infant mortality rates. (MF)

124 **Hobcraft, J., McDonald, J., and Rutstein, S.,** 1982, "Socio-economic factors in infant and child mortality: cross-national comparisons," paper presented at PAA conference, San Diego, "World trends in mortality" session.

This paper examines the socioeconomic correlates of neonatal, postneonatal and child mortality for 29 countries, using World Fertility Survey data. Five socioeconomic variables are considered: mother's education and work status, her current husband's education and occupation, and type of place of current residence. We present both univariate and multivariate analyses and discuss the enormous differentials uncovered. (AU)

125 **International Program for Population Statistics (Chapel Hill, North Carolina, U.S.A.),** 1980, "The 1979 Mexico National Fertility and Mortality Survey: a summary of results", _POPLAB Summary Series_, No. 2, 15 pp.

La Encuesta Nacional de Fecundidad y Mortalidad de México (1979) se realizó con una muestra estratificada de 20,166 hogares y 22,536 mujeres fértiles (p.2). La información recogida a través del cuestionario de hogar y el cuestionario individual apunta a las siguientes características de la población: a) una edad promedio de 22.6 años con un 50.8% de población entre 15 y 64 años y un 45.3% entre los 0-14 años (p.3); b) una tasa de fecundidad total en descenso que alcanza a 4.63 hijos por mujer (5.5 en 1976 y 5.8 en 1978) (p.6); c) tasas estimadas de mortalidad infantil entre 61 y 62 por mil nacidos vivos (p.10) que corroboran una tendencia declinante sostenida; d) una tasa bruta ajustada de mortalidad adulta que fluctúa entre 6.8 y 7.4 por mil, y una tasa ajustada de crecimiento entre 2.8 y 3.1% en la población de 5 años y más (p.12). (DOCPAL)

126 **Jiménez, R., y Minujín, A.,** 1982, "Mortalidad

infantil y clases sociales", informe preliminar, Instituto de Investigaciones Sociales, Universidad Nacional Autónoma de México, 26 pp.

El objetivo de este estudio es doble: a) buscar y proponer un marco de interpretación que posibilite profundizar a través del análisis cuantitativo y cualitativo las causas sociales, económicas, políticas y culturales que afectan la mortalidad, que se entiende como proceso social; y b) la aplicación de métodos (indirectos) que permiten estudiar la mortalidad infantil en dos grupos específicos de México (El Municipio de El Carmen, Tlaxcala - grupo campesino principalmente de produción de autoconsumo, y Ciudad Sahagún, Hidalgo, población obrera metalúrgica).

El documento se divide en 4 partes: discusión conceptual y forma de análisis adoptada, metodología e instrumentos de análisis, presentación de algunos resultados preliminares, y comentarios finales.

Tal como planteado, los niveles de mortalidad del grupo campesino de El Carmen exceden considerablemente a aquellos de los obreros de Ciudad Sahagún. (MF)

127 **Johnson, P.**, 1982, "Estimating infant mortality using information on the survival status of births in the year prior to a census or survey," in United States Bureau of the Census, "Techniques for estimating infant mortality," International Research Document No. 8, Washington, D.C., pp. 1-7.

This paper describes a simple method for estimating infant mortality rates based on the proportion of surviving births occurring during the 12 months before a census or survey and the Coale-Demeny separation factors of infant deaths. Two advantages of the method are that it allows measurement of infant mortality differentials by age, and other maternal characteristics, and the estimates refer to approximately the year before the census or survey. Use of the method is illustrated with data from the 1972 Paraguay census and the Indonesia Fertility Survey. The author recommends this as an additional method, the results of which should be examined in relation to other methods. (MF)

128 **Joseph**, S., 1980, "Outline of national primary health care system development: a framework for donor involvement," Social Science and Medicine, Vol. 14c, pp. 177-180.

This summary presentation describes the assumptions that underlie the drive on national and global bases alike, for the development of nationwide access to primary health care and outlines the actions that most developing countries will go through in moving toward development of a national primary health care system. The paper then arrays these actions in schematic form against categories of possible donor support, as a framework for further discussion. (AU)

129 **Joseph**, S., **and Stanton-Russell**, S., 1980, "Is primary care the wave of the future?" Social Science and Medicine, Vol. 14c, pp. 133-144.

In the current debate over how to utilize most effectively and efficiently resources to improve the health of populations in developing countries, the usual approach by those who would argue for heavy investment in Primary Health Care (PHC) is to compare and contrast the cost-effectiveness and cost-benefits of PHC versus alternative approaches. Although this paper touches upon the relative merits of PHC in contrast to alternative approaches, it focuses more centrally on the need to move from thinking about these as if they were mutually exclusive alternatives and toward greater attention to the proper balance among these alternatives. The debate over the investment in PHC as "the wave of the future" is or ought to be a debate concerning mix, timing, and emphasis. The paper also argues for expanding the realm of inquiry to include issues of sociopolitical motivation - factors that have too long been neglected in more purely technical approaches to the topic. Finally, the paper seeks to identify and explore resource requirements for and constraints to global expansion of PHC over the next 20 years and proposes specific principles to guide development of PHC strategies. (AU)

130 **Knowles, J.,** 1980, "Health, population and development," Social Science and Medicine, Vol. 14c, pp. 67-70.

Health status and trends in LDCs are reviewed using life expectancy as the principle measure. There are substantial regional differences in health status. East Asia and the Americas have about 20 more years of life expectancy than Tropical Africa and 10 years more than Northern Africa and Southern Asia.

Improvements in life expectancy in the last 20 years have averaged over 10 years in LDCs. The absolute gains, however, have diminished during this period. Changes in mortality show substantial declines in all age classes.

In developing countries, the bulk of deaths are among children under 5 years of age. Reductions in mortality in this age group have been relatively slow, although the causes seem largely preventable at low cost. Diarrheas, malnutrition, measles, lower respiratory infections, tetanus, and malaria dominate as causes. Tetanus and malaria significance varies with location. Deaths in children less than 1 month old account for 35-60% of infant mortality and are largely associated with low birth weight and tetanus. The sequelae of poverty lie at the base of much of child mortality, but the consequences of poverty of those who survive malnutrition, diarrheas and infection are probably more important.

Analysis of correlates of life expectancy in LDCs indicates that life expectancy is most strongly associated with literacy. Water and sanitation play a significant but much smaller role as explanatory variables, with gross national product (GNP) per capita adding little more.

Finally, an approach to health sector resource allocation is presented based on projecting mortality, disability, and costs of alternative policies and levels of expenditure. (AU)

131 **Laurenti, R.,** 1977, "Resultados e açoes apontadas

pela Investigação Interamericana de Mortalidade na Infância no Brasil", Boletín de la Oficina Sanitaria Panamericana, Año 56, Vol. LXXXII (4), pp. 344-360.

• A importância de uma pesquisa sobre o âmbito da Investigação Interamericana de Mortalidade na Infância reside principalmente nos rumos que pode assinalar para a solução dos problemas encontrados. O artigo fornece os dados básicos referentes aos três diferentes projetos no Brasil, proporcionando assim os fundamentos para novos estudos e acções no país. (AU)

132 **Laurell, A.,** 1981, "Mortality and working conditions in agriculture in underdeveloped countries," International Journal of Health Services, Vol. 11, No. 1, pp. 3-20.

The author examines mortality patterns among agricultural workers in developing countries. In particular, the relationships between mortality and the dynamics of social and economic progress are emphasized. It is suggested that mortality of such groups is not just a biological question but concerns the interrelations between biological factors and the historical process of which such groups are a part. (PI)

133 **Laurell, A., Blaneo, J., Machetto, T., Palomo, J., Perez, C., Ruiz, M., Urbina, M., y Valesquez, N.,** 1977, "Disease and rural development: a sociological analysis of morbidity in two Mexican villages," International Journal of Health Services, Vol. 7, No. 3, pp. 401-423.

It is suggested that the problem of the social causes of disease should be analyzed on the basis of significant social processes of a given society. In this theoretical framework, a comparative study of two Mexican rural villages at different degrees of development is presented to clarify two related questions: what is the impact on morbidity of the rural development process, and what is the influence of socioeconomic conditions on the distribution of disease in the population?

It was found that morbidity was significantly higher in the more "developed" village than in the one characterized by a predominantly subsistence economy. This finding is ascribed to the character of Mexican rural development, similar to that of other subordinated countries, which implies a change from subsistence agriculture to cash-crops in an unstable market, a massive conversion of peasants into wage labourers with unstable employment, and substantial migration; these phenomena give rise to new, unfavorable living and working conditions for large parts of the rural population. It is argued that it is not development as such that is responsible for the increase in morbidity, but the particular form that it assumes in the dependent countries.

It was also found that socioeconomic characteristics such as people's position in production, the sector of economic activity, and migration patterns define groups of high and low morbidity more clearly than do sanitary conditions and access to professional medical care. These results suggest that the success of public health activities depends on the possibility to plan the process of change. (AU)

134 **Marcotti, D.**, 1981, "La Mortalidad infantil, ¿Indicador de desarrollo? Análisis de las influencias demográficas sobre la tasa de mortalidad infantil en Chile, 1972-1978", Programa de Economía de Trabajo, Santiago, Chile, (mimeo), 25 pp.

El artículo nota la baja continua de la tasa de mortalidad infantil en Chile durante los últimos años a pesar del deterioro del nivel de vida de mayoritarios sectores populares. Formula la hipótesis que la baja de la natalidad y su concentración en los grupos de edad materna y paridad más adecuadas explican en gran medida la baja de mortalidad infantil que se ha mantenido en Chile en los últimos años. A manera de conclusión, indica que los resultados de la investigación de las variables demográficas (natalidad) son suficientemente claros para cuestionar la atribución de la baja de la

tasa de mortalidad infantil en Chile en los últimos años fundamentalmente a las políticas sociales del gobierno y del proceso de desarrollo económico. (MF)

135 **Martín de Rover, M., González, T., y Pulido, R.,** 1980, "Mortalidad en la Provincia de Mendoza 1976-77-78", Mendoza, Argentina, Dirección de Estadísticas y Censos, Secretaría de Planeamiento y Coordinación, 52 pp.

Las enfermedades diarreicas, septicemia, bronconeumonia, afecciones anóxicas e hipóxicas constituyen las principales causas de muertes infantiles en la provincia de Mendoza entre 1976 y 1978, aunque se observa una disminución de la importancia de las mismas en el último año (de 19% a 13.9%) (p.10). Entre los 1 y 44 años predominan las muertes por accidentes, envenenamientos y violencia y, a partir de los 45, las enfermedades del aparato circulatorio constituyen las primeras causas de muerte. El examen detenido de la mortalidad en la niñez revela, para el primer año de vida, una incidencia de causas perinatales que alcanza entre el 33.5% y 48.2%, de enfermedades infecciosas y parasitarias que alcanzan entre el 29.2% y el 15%, y de enfermedades respiratorias con el 16.3% al 15.9% (p.27). Entre los 1 y 4 años de vida los accidentes, envenenamientos y violencias dan cuenta del 27% de las muertes en 1976, y del 40.4% en 1978 (p.42). Las enfermedades infecciosas y parasitarias alcanzan en 1976 al 23.2% de las causas de muerte, y en 1978 al 16% (p.43). (DOCPAL)

136 **Martorell, R., Delgado, H., Valverde, V., and Klein R.,** 1981, "Maternal stature, fertility and infant mortality," Human Biology, Detroit, Vol. 53, No. 3, pp. 303-312.

The relationship between maternal stature, parity, offspring, mortality, and number of surviving children was investigated in 380 malnourished Guatemalan Indian women. Maternal stature averaged 142cm, maternal age 28 years, and parity and number of surviving children 4.4 and 3.0, respectively. Shorter women tended to have

greater parities but fewer surviving children; these relationships were not statistically significant, however, after adjusting for age, and/or parity, the association between maternal stature and number of surviving children became statistically significant. Mortality rates were higher for children of shorter mothers and this finding was unchanged by adjustments for maternal age and parity. One explanation for the findings is that shorter women compensate for the greater mortality of their children by having more children but not to the extent of having more surviving children. (PI)

137 Masuy-Stroobant, G., et Tabutin, D., 1982, "L'approche explicative en matière de mortalité des enfants. Réflexions et perspectives," Département de Démographie, Université Catholique de Louvain, Working Paper No. 110, 30 pp.

After stressing first the complexity of explaining mortality in childhood, we give a short overview of the various approaches and researches actually undertaken in different areas, directly or indirectly concerned by the phenomenon, particularly in epidemiology and in demography, but also in medical sciences, medical sociology, and anthropology.

The purpose of this review is mainly to point out the lack of coherence and the shortcomings of the researches with explanatory objective in this field: are they really explanatory or merely descriptive? Do they use the relevant techniques of observation and statistical analysis according to the objectives? Are they well integrated, without ambiguity, into the framework of a methodologically coherent thought? To these many questions, the answer is more than often negative.

To the partitioning of the different sciences concerned with childhood mortality, we oppose the necessity of a multidisciplinary and concerted approach, which should at the same time carry on the theoretical reflection on the causality of the phenomenon in all its complexity, and elaborate, according to it, research programs on the matter. (AU)

138 **McCormick, M., Shapiro, S., and Dudakis Horn, S.,** 1979, "The relationship between infant mortality rates and medical care and socioeconomic variables, Chile 1960-1970," International Journal of Epidemiology, Vol. 8, No. 2, pp. 145-154.

Infant mortality rates (IMR) have traditionally been considered useful as health status indicators, and changes in these rates are thought to reflect changes in both medical care services and socioeconomic circumstances. To explore this relationship of IMR with medical care and socioeconomic factors in a developing country, Chilean health zone data for the decade 1960-70 were used to construct 25 variables which were then classified into groups representing antenatal-obstetric services, acute and preventive medical services, and socioeconomic variables. In an analysis which involved developing a series of linear multiple regression equations for each year of the decade 1960-70 with IMR as the dependent variable, the percentage of births with professional attention proved to be the strongest variable. (AU)

139 **Médica, V., y Chackiel, J.,** 1981, "Panamá: la mortalidad y la fecundidad en el período 1950-1976", Panamá, Dirección de Estadística y Censo, CELADE, y U.S. National Academy of Sciences, 89 pp.

El presente informe, correspondiente a Panamá, se inserta en una serie de esfuerzos del Comité de Población y Demografía de la Academia Nacional de Ciencias de Estados Unidos y del CELADE, como contraparte regional, destinados a estudiar los niveles y tendencias de la mortalidad y la fecundidad en los países en desarrollo. El análisis de estas variables se basa en estimaciones directas e indirectas y en la comparación de los niveles obtenidos a través de los distintos métodos utilizados. (DOCPAL)

140 **Medina, E., y Kaempffer, A.M.,** 1979, "Morbilidad y atención médica en el Gran Santiago", Cuadernos Médico-Sociales, Vol. 20, No. 4, diciembre, pp. 15-32.

El diseño de la investigación corresponde a un estudio de prevalencia, en una muestra aleatoria de 442 hogares del Gran Santiago, con un total de 2074 personas encuestadas en 1977 (p. 15, 16). La frecuencia anual de episodios de enfermedad osciló entre 4 y 5, y la atención médica fue entregada mayoritariamente por el SNS y otras instituciones (69.2%). La demanda satisfecha alcanzó a 2.58 consultas anuales por habitante (p.18) y el sistema no resolvió el equivalente a 0.76 consultas anuales (p.28). En cuanto al significado de nivel de vida, se observa que las comunas con niveles familiares de ingreso superiores presentan una situación de salud distinta a la de las comunas de bajos ingresos. Las primeras exhiben una menor frecuencia de enfermedades agudas y crónicas, y un mayor número de controles de salud y de atención dental. Al parecer, el nivel de educación destaca como el factor más relevante en este sentido. Se confirma que la mayor edad se asocia a una mayor frecuencia de enfermedad, y que el estado de salud de las mujeres es inferior al de los hombres. (AU)

141 **Meegama, S.**, 1981, "The decline in mortality in Sri Lanka in historical perspective," solicited paper, IUSSP International Population Conference, Manila, Vol. 2, pp. 143-164.

Factors affecting the decline in mortality in Sri Lanka in the 20th century are examined, with particular reference to factors leading to mortality declines before 1945. The author notes the importance of economic development, which generated the resources for the creation of a nationwide network of hospitals and maternity homes; the provision of clean drinking water and sewerage services; the eradication of malaria, which opened new areas to cultivation; and the granting of universal adult suffrage in 1931 together with assumption of responsibility for services by local people.

The author concludes by noting the rise in mortality that occurred in the 1970s, the continuing inadequacies in the health situation, and the consequences of dependence on an export-oriented agricultural system. (AU)

142 **Meegama, S.**, 1980, "Socioeconomic determinants of infant and child mortality in Sri Lanka: an analysis of post-war experience," World Fertility Survey, Scientific Reports, No. 8, 55 pp.

The author uses information from the 1975 Sri Lanka Fertility Survey to analyze infant and child mortality trends and differentials in relation to various demographic, economic and political, environmental, medical, cultural, and geographical factors. (PI)

143 **Méndez, R., y Banguero, H.**, 1979, Dos ensayos sobre demografía colombiana, Universidad de Los Andes, Centro de Estudios sobre Desarrollo Económico, Bogotá, 105 pp.

Los dos ensayos sobre demografía colombiana contenidos en el documento se centran en: a) la evaluación de la calidad del censo de población de 1973; b) el estudio del impacto de distintas causas de muerte sobre la esperanza de vida promedio, a través de una metodología para calcular tablas de vida de riesgo competitivo. El apéndice describe un programa computacional para calcular dichas tablas. (DOCPAL)

144 **Mendoza, H., García, J., Coste, L., y Matos, P.**, 1979, "La acción de salud primaria como factor influyente en la disminución de la morbi-mortalidad infantil, barrios de alto riesgo", Archivos Dominicanos de Pediatría, Vol. 15, no. 3, septiembre-diciembre, pp. 159-163.

El estudio se orienta a precisar si las acciones de salud por sí solas constituyen un factor de peso en la modificación de la situación de riesgo en 7 barrios del sector sureste de Santo Domingo. Los cambios observados entre 1977-1979 - antes y después de la implementación de programas de atención primaria - revelan una reducción de casi el 50% en la mortalidad infantil y de 78% en la mortalidad entre pre-escolares. Durante el mismo período mejoró el ingreso familiar del 20% de la población, se lograron técnicas más eficientes de la disposición de basura, y la diarrea disminuyó de 32.7% a 21.8% en los menores de un año, observándose una mayor cobertura del programa de inmunizaciones. Las acciones de salud primaria desarrolladas - educación sanitaria, atención médica precoz - parecen constituir el factor más importante en la reducción de la mortalidad infantil pero no pueden considerarse en forma independiente de los logros económico-sociales y sanitarios descritos. (DOCPAL)

145 **Merrick, T.,** 1981, "The impact of access to piped water on infant mortality in urban Brazil, 1970-1976," contributed paper, IUSSP General Conference, Manila, December 9-16, 31 pp.

This paper uses data from the 1970 Brazilian census and the 1976 National Household Survey to measure inter-class differentials in infant and child mortality in urban Brazil and analyze the relation between changes in these differentials that may have occurred from 1970-76 and improved access to piped water, increased educational attainment of mothers, and other characteristics of families. (MF)

146 **Merrick, T., and Graham, D.,** 1979, "Fertility and mortality in the post war period", en: Merrick and Graham, Population and Economic Development in Brazil; 1800 to the present, Baltimore, Johns Hopkins University Press, pp. 251-277.

Brasil permaneció con altas tasas de natalidad hasta avanzado el proceso de urbanización e industrialización, y sólo a partir de 1970 se advierte un leve descenso. La declinación de la mortalidad,aunque tuvo un brusco cambio con la introducción de los adelantos médicos de 1930, ha adoptado un ritmo suave. La aplicación de la teoría de la transición demográfica al caso brasileño requiere de cautela; las respuestas demográficas a los cambios en la estructura socioeconómica son sumamente complejas, debido a las grandes diferencias regionales. Las presiones demográficas desde el Nordeste, tanto a través de las corrientes migratorias como de los patrones de fecundidad y mortalidad de los migrantes, afectan la composición por edad de la población y la natalidad, mortalidad y nupcialidad de las regiones Sudeste y la frontera Centro-Oeste. Aunque el impacto inicial frenó el descenso de la fecundidad en estas regiones, a medida que los migrantes asimilaban los patrones urbanos dicho descenso adquirió nueva fuerza. Sin embargo, la falta de accesibilidad de las clases pobres urbanas a la salud y a la disponibilidad de anticonceptivos limitarían el proceso de transición. Hay evidencia de la incorporación de algunas áreas rurales a dicho proceso. (DOCPAL)

147 **Meslé, F., Vallin, J. et Biraben, J.-N.,** 1980, "Séminaire sur les aspects biologiques et sociaux de la mortalité," Population, Vol. 35, No. 6, Notes et documents, pp. 1191-1197.

Fournit un compte rendu du premier séminaire de la Commission sur les facteurs affectant la mortalité et la durée de vie (de l'Union internationale pour l'étude scientifique de la population) tenu à Fiuggi, Italie, du 11 au 15 mai 1980. Vingt communications sollicitées et 14 communications spontanées étaient présentées. La réunion s'est organisée autour de sept thèmes: (a) différences de mortalité et de morbidité entre groupes humains; (b) théories biologiques ou mathématiques sur le vieillissement; (c) facteurs génétiques de la mortalité; (d) environnement et mortalité; (e) sous-nutrition; (f) facteurs de comportement personnel; (g) conditions de travail.

Les notes infrapaginales indiquent les auteurs et les titres des communications présentées qui sont brièvement commentées dans le texte. (MF)

148 **Mina, A.,** 1981, "Estimaciones de los niveles, tendencias y diferenciales de la mortalidad infantil y en los primeros años de vida en México, 1940-1977", Demografía y Economía, XV:1 (45), pp. 85-142.

Estimaciones basadas en estadísticas vitales y la Encuesta Mexicana de Fecundidad. Proporciona estimaciones de mortalidad infantil según la edad de la madre, nivel de instrucción de la madre, lugar de residencia (rural-urbano), sexo del niño, y momento en el tiempo. En general, los resultados son conformes con aquellos provenientes de estudios similares realizados en otros países de la región. (MF)

149 **Mirõ, C., and Potter, J.,** 1980, "Mortality", en: Population Policy Research Priorities in the Developing World, Frances Pinter, London, pp. 73-87.

Extracto del capítulo de mortalidad correspondiente al Informe Final del International Review Group, que comprende un examen del estado del conocimiento acerca de la mortalidad, sus determinantes y consecuencias en los países en desarrollo, del contexto político donde se determinan las políticas de salud, y sugerencias para las investigaciones futuras. Respecto al conocimiento de la mortalidad, se encuentran grandes diferencias regionales; América Latina ocupa un lugar privilegiado entre los países en desarrollo, en cuanto a la disponibilidad de fuentes de datos, los cuales han sido explotados ampliamente para estimar los niveles, tendencias y diferenciales de la mortalidad. No se ha logrado igual nivel de conocimiento de la mortalidad por causa, que representa aquellos factores biológicos que mediatizan la acción de los determinantes sociales. Muchos esfuerzos se han efectuado para analizar las relaciones de la mortalidad con el desarrollo, pudiendo concluirse de los diversos hallazgos, que juegan un papel importante tanto el nivel de vida como los servicios y programas de salud. La contribución de la investigación demográfica, en la próxima década, debería estar orientada a proporcionar los elementos para el diseño de políticas de salud y desarrollo, constituyendo las principales interrogantes el tipo de programa y el tipo de desarrollo que tendrían mayor efecto en la mortalidad, tomando en cuenta las necesidades individuales de cada país. (DOCPAL)

150 **Molina-Guzman, G.,** 1979, "Third World experiences in health planning," International Journal of Health Services, Vol. 9, No. 1, pp. 139-150.

In response to an invitation by the American Public Health Association, the author discusses his experiences in health work with particular reference to the Third World. These cover a period of 4 decades of activities in many countries, the discussion being primarily directed toward the North American audience attending the panel organized by the International Health Committee at the 104th Annual Meeting of the Association in Miami Beach in October 1976.

First, the paper deals with the legacy of broad social teaching resulting from the years of international collaboration from the time of Franklin D. Roosevelt to that of Richard Nixon. Public health problems, whether new or old, are essentially social in character and can only be solved in terms of social policy. Attention is directed to the current mistake of placing the emphasis on individual behaviour, divorced from its social base, in the work of health professionals serving in Third world countries. The value and limitation of indicators are discussed against this background. The weakness of national average values and the consequent need of measuring the differentials between social groups and classes are widely illustrated. Finally, positive and negative lessons learned by experimenting with health technology consistent with the expected development of countries are examined as a basis for a genuinely emancipatory approach to the health problems in the Third World. (AU)

151 **Monckeberg, F., y Riumalló, J.,** 1979, "El programa de centros cerrados de recuperación nutricional en Chile: una experiencia con la marginalidad", Santiago, CEPAL, presentado en "Simposio regional sobre la pobreza crítica en la niñez", diciembre, 32 pp.

El Programa de Centros Cerrados de Recuperación Nutricional de la Corporación para la Nutrición Infantil de Chile, ofrece una solución alternativa de mayor efectividad y menores costos a la desnutrición infantil. El estudio piloto, cuyos resultados se presentan en detalle, se realizó entre agosto de 1975 y fines de 1977, con un grupo de 80 lactantes desnutridos graves. El tratamiento integral estuvo a cargo de un equipo

multiprofesional, proporcionándose al menor una nutrición adecuada, así como niveles constantes de estimulación psicomotora, sensorial y afectiva. Al mismo tiempo se actuó sobre el grupo familiar, especialmente las madres, integrándolas al plan de tratamiento y educación del niño. Concluído el proyecto piloto, el programa pasó a implementarse a nivel nacional, existiendo actualmente 30 centros con una capacidad instalada de 1200 camas. Entre 1977 y 1979 se han dado de alta 3043 niños, la mayoría de ellos (84%) (p. 29) recuperados. (DOCPAL)

152 **Monteiro. C.**, 1982, "Contribuição para o estudo do significado da evolução do coeficiente de mortalidade infantil no município de São Paulo SP (BRASIL) nas últimas três décadas (1950-1979)", Revista Saúde Pública, São Paulo, Vol. 16, pp. 7-18.

Buscando contribuir ao estudo da relação evolução da mortalidade infantil - evolução da qualidade de vida, foram examinadas no município de São Paulo as correlações existentes nas três últimas décadas entre as séries históricas da mortalidade e as séries históricas do valor do salário mínimo e da cobertura do abastecimento público de água. Estes dois últimos, salário e água, entendidos como fatores de maior e menor abrangência para o conjunto das condições de vida da população. O descenso da mortalidade na década de 50 e o ascenso da mesma na década de 60 estiveram significativamente relacionados a evolução do salário-mínimo real. Entretanto, a evolução da mortalidade na década de 70, com importante queda a partir de 1974, esteve relacionada especificamente a evolução do abastecimento de água. Conclui-se que no período 1950-1979 sao diferentes as implicações para a qualidade de vida que podem ser tiradas a partir da evolução da mortalidade infantil e que parece equivocado afirmar-se que a reversão das altas mortalidades a partir de 1974 tenha significado idêntica reversão na deterioração das condições de vida que ensejaram o ascenso da mortalidade no período anterior. (AU)

153 **Monteiro, C.**, 1981, "Estimativa dos coeficientes específicos de mortalidade infantil segundo peso ao

nascer no município de São Paulo (Brasil)", Revista Saúde Pública, São Paulo, Vol. 15, pp. 603-610.

Foi estimada a distribuição do peso ao nascer da coorte dos recém-nascidos que deu origem aos óbitos infantis estudados pela Investigação Interamericana de Mortalidade na Infancia no projeto de São Paulo (1968-70) e determinados os riscos de óbito associados a cada intervalo de peso de nascimento. Assim, foram apurados coeficientes de mortalidade infantil de 305,5, 50,2 e 34,4 para recém-nascidos de baixo peso, peso deficiente e peso superior a 3.000 g. A comparação destes coeficientes com os registrados na área americana incluida na investigação citada (Califórnia), revelou excesso de mortalidade, particularmente notável não para os recém-nascidos de baixo peso, mas para os recém-nascidos de peso superior a 3.000 g. O ajuste da mortalidade de São Paulo (Brasil) a distribuição do peso ao nascer observada na Califórnia foi capaz de explicar 15% do excesso da mortalidade infantil e 21% do excesso da mortalidade neo-natal de São Paulo. (AU)

154 **Monteiro, C.**, 1980, "Peso ao nascer e excesso de mortalidade infantil em São Paulo", Revista Saúde Pública, (São Paulo), Vol. 14, pp. 1-8.

A influência que a distribuição do peso ao nascer exerceu sobre os coeficientes de mortalidade infantil de São Paulo em 1976 foi estudada através do ajuste destes coeficientes a uma distribuiçao ideal do peso ao nascer. Diferentemente de outros contextos de excessiva mortalidade, o excesso de óbitos infantis de São Paulo não parece dever-se fundamentalmente ao peso ao nascer. Algumas evidências sugerem que os factores de mortalidade do ambiente físico e social do município poderiam ser mais vulneráveis a acções destinadas a reduzir a mortalidade infantil do que o seriam os fatores ligados a vitalidade do recém-nascido. (AU)

155 **Monteiro, C.**, **D'Aquino, M.H.**, e **Baldijao, M.**, 1980, "Mortalidade no primeiro ano de de vida e a distribuição da renda e de recursos públicos de saúde", São Paulo (Brasil), Revista Saúde Pública, São Paulo, Vol. 14, pp. 515-539.

Foi feito estudo para identificar em torno de 1976 a distribuição da frequência do óbito infantil, a distribuição da renda e a distribuição da disponibilidade de determinados recursos públicos de saúde nos 55 distritos e sub-distritos do município de São Paulo (Brasil), para analisar as possíveis identificações entre estas distribuições. A frequência do óbito infantil foi crescente no sentido centro-periferia da cidade, o mesmo ocorrendo com a concentração de familias de baixa renda. Os recursos públicos de saúde estudados, água do abastecimento público, leitos hospitalares e centros de saúde do Estado, foram decrescentes no mesmo sentido centro-periferia. Tanto a distribuição crescente da baixa renda quanto a distribuição decrescente dos recursos públicos acham-se positiva e significativamente correlacionadas a distribuição crescente da mortalidade infantil. Na área periférica da cidade, correspondente a área de maior mortalidade, encontra-se a mais alta concentração de famílias de baixa renda e, também, as menores disponibilidades de recursos públicos de saúde providos direta ou indiretamente pelo Estado. Conclui-se que renda e recursos públicos operam no mesmo sentido, ou seja, de reforço mútuo as desigualdades registradas ao nível da mortalidade infantil, e não no sentido inverso, como talvez se pudesse crer. Discute-se o duplo processo desigual da distibuição das riquezas na cidade de São Paulo, o que se dá na distribuição direta da renda e o que se dá, posteriormente, quando o Estado participa daquela distribuição provendo serviços públicos. (AU)

156 **Mora, J., et al,** 1979, "Complementación alimentaria durante el embarazo; impacto sobre la madre y el niño", en Colombia, Departamento Nacional de Planeación, (Bogotá), pp. 101-114.

El estudio sobre nutrición, estimulación y desarrollo mental en Colombia se realizó en 456 embarazadas de nivel socio-económico bajo, cuyos hijos menores de 5 años presentaban desnutrición. Las madres fueron asignadas al azar a un grupo control y a un grupo con alimentación suplementaria para ellas y sus familias. Los resultados indican que la complementación produjo un efecto significativo en la ganancia de peso de las madres durante el último trimestre del embarazo, siendo

dicha ganancia mayor mientras mayor fue la participación en el programa. El peso al nacer de los hijos de madres así alimentadas durante más de 13 semanas fue superior en 77 gramos al peso de las madres del grupo control (p.108). Las diferencias más importantes entre los recién nacidos de los dos grupos se relacionan con las tasas de mortinatalidad perinatal y neonatal. El grupo complementado exhibe tasas de mortinatalidad del 9 por mil, de mortalidad perinatal del 31.7 por mil y de mortalidad neonatal del 22.8 por mil; en tanto que en el grupo control las cifras alcanzan a 36 por mil, 63.1 por mil y 42.1 por mil, respectivamente (p.111). (DOCPAL)

157 **Morris, D.,** 1979, Measuring the condition of the world's poor, Overseas Development Council, Pergamon Press, New York, 178 pp.

The author proposes an indicator (PQLI) - the Physical Quality of Life Index - intended as a measure of the physical well-being of national populations that can be used by itself or in conjunction with per capita income indicators. The components of the indicator are (a) basic literacy (percentage of the literate population aged 15 years and over), (b) infant mortality, and (c) life expectancy at age 1. (MF)

158 **Mosley, W.,** 1980, "Social determinants of infant and child mortality: some considerations for an analytical framework," in: Population Council, Program for West Asia and North Africa, "Health and mortality in infancy and early childhood: report of a study group," Regional Papers, No. 13, Cairo, 18-20 May, pp. 19-43.

This paper represents a preliminary effort by the author to develop a conceptual framework for critically analyzing the determinants of infant mortality. The approach begins with the major biological and physical processes contributing directly to mortality, identifying the intermediate variables that contribute to this process, and within this framework seeks to clarify how social and economic determinants operate to influence mortality levels. (MF)

159 **de Motta Leite, V.**, 1980, "Níveis y tendências da mortalidade e da fecundidade no Brasil a partir de 1940", in: Anais Segundo Encontro Nacional de ABEP, Aguas de São Pedro, octubre, pp. 581-609.

Presenta y discute las principales fuentes de datos y las estimaciones de mortalidad y de fecundidad para Brasil y sus regiones desde 1940. Tanto la mortalidad como la fecundidad están disminuyendo para el país y en todas sus regiones. Para los años recientes, la fecundidad sigue su descenso a un ritmo más acelerado que la mortalidad, teniendo como consecuencia una disminución de la tasa de crecimiento y un cambio en la estructura etárea de la población. (MF)

160 **Müller, M.**, 1981, "Algunos condicionantes económico-sociales de la mortalidad infantil (Argentina) 1978", documento contribuido a la reunión general del IUSSP, Manila, 8 pp.

Este trabajo constituye un resultado parcial del proyecto "Correlatos de la mortalidad rural (Argentina)" que llevó a cabo un equipo de investigadores en el Centro de Estudios de Población. Se destaca la influencia de 3 factores sobre la mortalidad infantil para el año 1978 en la Provincia de Misiones: nivel de urbanización, nivel socioeconómico del padre y nivel educacional de la madre. La fuente de datos para el estudio era los datos de registro civil para lo cual se tuvo que parear la información proveniente de certificados de nacimiento y defunción. (MF)

161 **Mundigo, F.**, 1979, "Population policy and mortality research: an examination of current issues," Working Paper No. 1, Mexico City, Population Council, Latin America and Caribbean Regional Office, 19 pp.

The author examines some current research needs in Latin America with regard to mortality and how policies can be developed to meet those needs. Particular attention is given to Cuban health policy. (PI)

162 **Naciones Unidas, División de Población**, 1979, Model life tables for developing countries: an interim report, New York, N.Y., 89 pp.

Informe acerca de los progresos de un proyecto destinado a desarrollar un conjunto nuevo de tablas modelo de vida. El objetivo del proyecto es utilizar datos de países en desarrollo, ya que las tablas modelo existentes se basan en datos de países desarrollados; se reconoce la existencia de una diferencia sistemática en las pautas de mortalidad entre estos países - especialmente en lo que se refiere a mortalidad infantil y juvenil - por lo que se hace necesario elaborar un conjunto nuevo de tablas modelo. Los datos para este proyecto provienen, en su mayoría, de la recopilación hecha por el proyecto de mortalidad de la Organization for Economic Cooperation and Development (OECD). Utilizando los datos correspondientes a El Salvador como ejemplo, se discuten técnicas para evaluar y ajustar estos datos, especialmente en lo que se refiere a la omisión del registro de defunciones. La evaluación y ajuste se hace a través de técnicas que evalúan la consistencia interna de datos demográficos - propuestas por Brass, Preston y Martin - y por medio de comparaciones hechas con fuentes de datos externas, tales como encuestas demográficas y tablas modelo. Con base en estos datos, se procede a la construcción de tablas de vida ajustadas y no ajustadas para El Salvador, con el propósito de establecer cuáles son más adecuadas para servir como datos de entrada para la construcción de las tablas modelo. Finalmente, se discute la metodología que será utilizada para la construcción de dichas tablas. La discusión se centra en los siguientes tópicos: número de parámetros; tipo de transformación; función; procedimientos estadísticos. Se compara esta metodología con la utilizada por Coale y Demeny, y por Lederman. (DOCPAL)

163 **Nag, M.**, 1981, "Impact of social development and economic development on mortality: a comparative study of Kerala and West Bengal," December, New York, The Population Council, Center for Policy Studies, Working Paper No. 78, 51 pp.

Kerala's mortality level has been lower than West Bengal's at least since the early 20th century. The difference became sharper in the 1970s. Environmental and hygienic conditions are more favourable in Kerala, but the difference does not seem to be great enough to explain a significant part of the mortality differential. The empirical evidence from various surveys shows that the differences between the states in nutritional standard, per capita income, distribution of income and assets, industrialization and urbanization, cannot explain the lower mortality level in Kerala. The wider distribution of health facilities in the rural areas of Kerala and their greater utilization are found to be significant factors. Two important reasons why the health facilities are used more in Kerala have been identified. First, the proportion of literates, particularly among females, is much higher in Kerala. Historically, there has always been greater emphasis in Kerala on education and public health. Second, the rural poor in Kerala are more aware of their rights to use health and other public facilities than those in West Bengal. The differential awareness can be traced to the historical difference in the social and political movements in the two states. In general, West Bengal has always been characterized by a higher level of economic development and Kerala by a higher level of social development. The lower mortality level in Kerala can be attributed mostly to its higher social development and partly to its favourable environmental and hygienic conditions. (AU)

164 **Nelson, M., and Johnson, N.,** 1982, "Housing quality, household income and child mortality in rural Philippines: evidence from Iloilo Province," paper presented at Population Association of America meeting, "World Trends on Mortality" Session, San Diego, April.

Infant and child mortality, as with general mortality, can be examined in terms of either socioeconomic or medical factors. For developing countries, medical progress in reducing mortality of children and infants is frequently blunted by lack of progress in social and economic conditions. Often the inability of families to provide a sanitary, safe environment for their family members results in a higher risk of morbidity and mortality.

Data were obtained for 641 rural mothers in Iloilo Province, the Philippines in 1978-79. The women were divided into two groups: those whose household income per capita was above P200. A logistic regression showed that higher quality of housing significantly reduced the probability of child morality among the lower income group but not among the upper income group. The implications for policy are explored. (AU)

165 **Newland, K.,** 1981, "Infant mortality and the health of societies," Worldwatch Paper, No. 47, Washington, Worldwatch Institute, December, 56 pp.

This paper is concerned with levels and trends of infant mortality around the world. Some examples of rising infant mortality rates are identified and analyzed. The paper then deals with the direct causes of death and the social and physical environment lying behind the direct causes of death. The relationship between fertility and infant mortality is discussed, and ways to reduce infant mortality are examined. (PI)

166 **Olsen, R.,** 1980, "Estimating the effect of child mortality on the number of births," Demography, Washington, Vol. 17, No. 4, November, pp. 429-443.

This article rigorously derives the properties of the regression of births on child deaths. It is shown how the raw regression coefficient may be corrected for the effects of fertility on mortality so that the rate at which dead children are replaced may be estimated. The method is applied to data from Colombia. It is found that the mortality rate differs across individuals and is correlated with fertility. Such conditions vitiate the use of birth intervals and parity progression ratios yet can be dealt with using the new method. On average each death produces 0.2 new births as a direct result of the death. Fertility hoarding may raise the total fertility responses to roughly one-half birth per death. (PI)

167 **Orellana, H.,** 1981, "Chile: estimación de la fecundidad y la mortalidad a nivel nacional según áreas urbano-rural a partir de la Encuesta Nacional Suplementaria realizada por el Instituto Nacional de Estadística en 1976", CELADE, 53 pp.

Las estimaciones de la fecundidad y mortalidad a nivel nacional y según área de residencia en Chile, se basan en los resultados de la encuesta demográfica suplementaria realizada en 1976. Los resultados concuerdan con las proyecciones de CELADE para 1978 y entregan tasas globales de fecundidad de 3.31 para el país y de 2.95 para las áreas urbanas. Tanto a nivel nacional como urbano se observa que las estructuras no difieren en forma significativa, aunque aquellas proporcionadas por la encuesta son de cúspide menos temprana que las calculadas en la proyección; es decir, hay una diferencia de cierta importancia en el grupo 20-24 años. A nivel rural, la tasa global de fecundidad alcanzó a 4.65 hijos por mujer (p. 33). En cuanto a la mortalidad, los resultados erráticos restringieron el análisis a nivel nacional. En las edades 10, 15 y 20 años se registra una subestimación a partir de la encuesta para el período 1969-1970, que reviste caracteres mayores a nivel adulto. En general, las estimaciones obtenidas a través de este instrumento parecen aceptables en términos de la fecundidad. Para la mortalidad, en cambio, son sólo aceptables las estimaciones a nivel juvenil. (DOCPAL)

168 **Orellana, H.,** 1980, "Chile: estimación de la mortalidad alrededor de 1920, 1930 y 1940 utilizando métodos indirectos", CELADE, Santiago, presentado en: Curso de Análisis Demográfico Avanzado, 1980-81, 22 pp.

La estimación de la mortalidad por sexo para 1920, 1930 y 1940 en Chile se basa en procedimientos indirectos, en especial en la evaluación de la coherencia entre el registro de defunciones y la población censal. Las tablas construidas parecen aceptables, aunque exhiben algunas limitaciones en términos de la fragilidad de las estimaciones para los menores de 1 año y la elección de un standard adecuado cuya estructura refleje las características de la mortalidad chilena. Las estimaciones entregan cifras globales de esperanza de vida a los 5 años de 48.47 y 49.02 años, para los hombres y mujeres en 1930, y de 49.57 y 51.98, respectivamente, en 1940 (p. 5). La esperanza de vida al nacer estimada es de 42.88 y 45.68 para hombres y mujeres en 1940, y la mortalidad infantil estimada alcanza ese año a 199 por mil y 184 por mil para hombres y mujeres (p. 8). (DOCPAL)

169 **Organization for Economic Co-operation and Development (OECD)**, 1980, Mortality in Developing Countries, Development Centre, OECD, Paris, 6 volumes.

This is a six-volume compendium of mortality levels, structure, and trends in developing nations. Volumes one and two present raw data on population age structures and deaths, mortality rates, and life tables. Volume three evaluates the regularity of population distributions and the coverage rates of reported deaths. The fourth volume makes adjustments for population distribution and life tables. Volume five provides a series of new life tables for developing countries. The final volume deals with death and population statistics. These volumes are an important contribution to the understanding of mortality in the developing world. (MF)

170 **Orihuela, E.**, 1981, "Población y niveles de salud", en: Asociación Multidisciplinaria de Investigación y Docencia en Población, (Lima, Perú) Ed., Seminario-Taller sobre Demografía Social, 14-25 abril, pp. 1-24.

El problema de la salud se enfoca desde una perspectiva en que se articulan los conceptos biomédico, ecológico y social. A partir de los datos individuales para 150 provincias del Perú, se configuran 6 zonas con un criterio básicamente ecológico de diferentes climas y patologías; la forma como estas últimas afectan a la población se analizan basándose en los datos de mortalidad por causa. Se advierten en las regiones distintos niveles de salud y riesgos de morir por causas diferentes, determinados por los factores ambientales, afirmándose que estos riesgos se multiplican o disminuyen al interactuar con otros factores sociales. El examen de los indicadores sanitarios, educativos, asistenciales y económicos respalda esta afirmación, concluyéndose que la salud es en última instancia un problema económico, el cual va a condicionar la interacción entre el medio ambiente y el individuo. (DOCPAL)

171 **Ortiz, L.**, 1980a, "Análise da mortalidade infantil por grupos de causa de morte" in Anais Segundo Encontro Nacional da ABEP, Aguas de São Pedro, Brasil, octubre.

El método biométrico ideado por Bourgeois-Pichat, que permite separar las defunciones infantiles por causas endógenas y exógenas, se aplica en el Estado de São Paulo, Brasil, en el período 1930-1978. Con este método se pueden estimar las defunciones endógenas a partir de las infantiles acumuladas por edad, mediante la aplicación de una relación lineal. Los resultados fueron contrastados con los datos obtenidos de las estadísticas de causas de muerte, hallándose bastante similares; el método presentado será por consiguiente de utilidad para superar los problemas que presenta la información básica. (DOCPAL)

172 **Ortiz, L.**, 1980b, "A mortalidade por causas evitáveis no Estado de São Paulo 1975/76" en Fundação, SEADE, Informe Demográfico, No. 4, pp. 47-105.

Utilizando las tabulaciones especiales de la SEADE, se elaboran para el Estado de São Paulo (1975-1976) tablas abreviadas de mortalidad por grupos de causas de muerte evitables, estableciéndose las ganancias en años de esperanza de vida a partir de la eliminación hipotética de dichas causas. Por causas evitables se entienden aquellas susceptibles de ser controladas por la tecnología médica o por el mejoramiento de las condiciones de saneamiento ambiental. Los principales resultados obtenidos revelan: a) que el control de las causas examinadas origina aumentos en la esperanza de vida en función del sexo y la edad y su eliminación implica una ganancia significativa en la esperanza de vida al nacer superior a 8 años en los hombres y a más de 6 en las mujeres; b) la mayor ganancia proviene de la supresión de las muertes violentas en los hombres (2.16 años) y medidas de saneamiento ambiental en las mujeres (1.70 años) (p. 59); c) a partir del primer año de vida, las ganancias disminuyen en forma marcada, y después de los 45 se reducen drásticamente; d) independiente de la edad y de la causa de muerte suprimida, las mujeres exhiben siempre una esperanza de vida al nacer mayor que los hombres. (DOCPAL)

173 **Oyarzo, C.,** 1983, "Desigualdades en el campo de salud: Chile, 1970-1979", Notas Técnicas No. 53, CIEPLAN, Santiago, 37 p.

El surgimiento de un nuevo modelo político-económico a partir de septiembre de 1973 trajo consigo importantes modificaciones para el sector salud, así como en el campo socioeconómico. El propósito de este artículo es determinar el impacto de estas transformaciones sobre las desigualdades en el campo de la salud. Para ello se presenta en la primera parte del documento los postulados generales de la política de salud, y la tendencia seguida por los promedios nacionales de los principales indicadores del sector. En la segunda parte se realiza un análisis comparativo de la distribución regional de recursos, atenciones y estado de salud prevaleciente en el año 1978 relativo a las existentes en 1970. Una de las conclusiones que fluyen de los antecedentes presentados es que la evolución de las desigualdades en el campo de la salud, durante los años setenta, no significó una alteración sustancial de la tendencia observada durante el decenio anterior. (AU)

174 **Paim, J., Dias, C., y Araujo, J.,** 1980, "Influencia de fatores sociais e ambientais na mortalidade infantil", Boletín de la Oficina Sanitaria Panamericana, Vol. 88, No. 4, abril, pp. 327-338.

Con el propósito de determinar la influencia de los factores ambientales en la evolución de la mortalidad infantil del Municipio de Salvador, Estado de Bahía, Brasil, se efectuó un análisis de regresión múltiple, respecto al período 1962-1973. Como variables dependientes se usaron las tasas de mortalidad infantil, neo-natal, infantil tardía, y tasas específicas por enfermedades diarreicas, del aparato respiratorio e infecciones y parasitarias. Los indicadores de los factores ambientales fueron: temperatura y precipitaciones, salario real, abastecimiento de agua, crecimiento económico, educación y asistencia médica. Los resultados señalaron que los factores ambientales incluidos explicaron el 81.9% de la tasa de mortalidad infantil; el saneamiento, crecimiento económico y abastecimiento de agua explicaron el 74.9% de la mortalidad neo-natal; las muertes por enfermedades infecciosas se vieron explicadas en un 89.6% por la temperatura y el saneamiento, mientras que las muertes por enfermedades respiratorias estuvieron explicadas en un 88.6% por las precipitaciones, el salario y el crecimiento económico (p. 332). Destácase la asociación positiva que se halló entre la mortalidad infantil y el crecimiento económico, y con el salario. (DOCPAL)

175 **Palloni, A.,** 1981a, "Current mortality conditions in Latin America with emphasis on infancy and early childhood," Statistical Bulletin of the OAS, Vol. 3, No. 3-4, July-December, pp. 1-26.

Although the pace of the postwar Latin American mortality decline was unprecendented, unexpected changes have been taking place in the past 10 years. The author attempts to illustrate and to interpret the variations in the pace of mortality decline by showing that: (a) a sharp slowdown in the rates of gains in survivorship has been experienced by a majority of Latin American countries, (b) mortality in infancy and childhood has, until recently, remained at levels higher than those expected given overall levels of mortality, and (c) the pattern of causes of deaths in infancy and childhood is totally dominated by diseases that cannot be prevented or cured unless basic improvements in socioeconomic conditions take place.

The author also discusses the major determinants of

excess infant and childhood mortality and relates the pattern of causes of deaths to the societies' levels of resources per capita and the strength of social organizations. (AU)

176 **Palloni, A.,** 1981b, "Mortality in Latin America: emerging patterns," Population and Development Review, Vol. 7, No. 4, December, pp. 623-649.

During the mid to late 1960s and the early 1970s, the process of mortality decline in Latin America appears to have experienced some setbacks. Although by no means generalized, a decrease in the pace of gains in life expectancy affected countries at relatively advanced stages of their mortality transition as well as those at early stages. In addition to the deceleration of the rates of gains of life expectancy, Latin American countries exhibit a peculiar age pattern of mortality in infancy and early childhood. Investigation of the structure of the causes of death reveals that the factors responsible for excess mortality at these ages are quite different in different countries. However, it appears that ultimately they may be traceable to inadequate standard of living. (AU)

177 **Palloni, A.,** 1981c, "A review of infant mortality trends in selected underdeveloped countries: some new estimates," Population studies, Vol. 35, No. 1, March, pp. 100-119.

It is well known that vital statistics in developing nations are deficient. In an attempt to fill the information gap, new estimates of mortality levels in infancy and childhood are presented for a sample of countries in Africa, Asia, and Latin America. The technique used to generate these estimates requires information on child survivorship and some assumptions about the age pattern of mortality. A by-product of the application of the technique is the estimation of past mortality trends. These estimates are valid, provided some restrictive assumptions about the functional form of the mortality trends hold true. (AU)

178 **Palloni, A.,** 1980, "Estimating infant and child mortality under conditions of changing mortality," Population Studies, London, Vol. 34, No. 1, March, pp. 129-142.

It is well known that estimates of infant mortality obtained using Brass's technique are very accurate. Biases are introduced, however, when one or more of the assumptions on which it relies are violated. Departures from the assumption of constant fertility may be handled by using a variant of the technique which depends on information on the age distribution of surviving children, rather than on indexes of the fertility function. Violations of the assumption of constant mortality - an increasingly common situation in most developing societies - produce upward biases in the estimates. The amount of bias is a function of the speed of mortality decline, the characteristics of the fertility pattern, and, finally, of the age of the mother. This paper presents a simple technique which corrects these biases, and, in addition, generates estimates of the parameters of the mortality trend. It differs from others in that it uses a cohort definition of mortality decline and relies on knowledge of the age structure of surviving children rather than on indexes of the fertility pattern. (AU)

179 **Palloni, A.,** 1979a, "Mortality declines in Latin America: the variable contribution of causes of deaths," paper presented at 1979 Population Association of America meetings, Philadelphia.

The author attempts to provide a rigorous account of the main characteristics and correlates of mortality decline in the postwar period in selected Latin American countries. The contribution of general groups of causes of deaths is assessed, and the structural shift in the pattern of causes of death is analyzed. This is done by formulating a model that incorporates sources of variation across time and across regions. The explanation of the levels of mortality, speed of decline, and structural shifts in the pattern of causes of deaths is studied in relation to changes in socioeconomic levels and public health programs. (PI)

180 **Palloni, A.,** 1979b, "A new technique to estimate infant mortality with an application for El Salvador and Colombia," Demography, Vol. 16, No. 2, August, pp. 455-473.

The paper presents new estimates of infant mortality for Colombia and El Salvador for the years 1950-70. These estimates are obtained by using a technique that improves on Brass's method in that it suppresses the assumption of constant mortality and introduces instead assumptions about linear and nonlinear changes in mortality risks affecting various cohorts of individuals. (AU)

181 **Panamá, Ministerio de Planificación y Política Económica,** 1979, "La situación de salud", en: El niño en Panamá, pp. 130-189.

Dos esfuerzos llevados a cabo a través de los programas de salud del sector público en Panamá se han traducido en un mejoramiento de las condiciones sanitarias, reflejadas en los distintos indicadores de salud, especialmente a nivel de la población infantil. En 1977, el 75% de los nacimientos vivos recibió atención profesional y el 61% de ellos tuvo lugar en instituciones de salud (p. 137, 138). Sin embargo, los programas de control de la salud del niño - vacunaciones, atención medica y otros - siguen sujetos a diferencias geográficas marcadas y son especialmente deficitarios en las áreas rurales. En ese mismo año, las patologías más frecuentes fueron las diarreas, la influenza, el sarampión, la hepatitis, la angina estreptocócica y la escarlatina. En 1970, las muertes de menores de 5 años representaron un tercio de la mortalidad total lográndose, en 1977, una reducción de más del 40% de las mismas (p. 150). La desnutrición constituye uno de los principales problemas de salud, y frente a él se implementan numerosos programas de alimentación complementaria analizados en detalle en el trabajo. (DOCPAL)

182 **Patel, M.,** 1980, "Effects of the health service and environmental factors on infant mortality: the

case of Sri Lanka," Journal of Epidemiology and Community Health, Vol. 34, pp. 76-82.

One of the findings of this study is that regional variations in the infant mortality rates of Sri Lanka are large, ranging from 26/1,000 live births in Jaffna to 91/1,000 in Nuwara Eliya, a tea estate district. These differences are more strongly associated with regional variations in environmental determinants of mortality than with regional variations in public health expenditure. The most significant environmental factor associated with interregional infant mortality rates was found to be the nature of the water supply (r = -0.82, significant at the 99% level). Regional government expenditure on health had only a weak association with infant mortality rates (r = 0.08). (AU)

183 **Pebley, A., Delgado, R., and Brineman, E.,** 1979, "Fertility desires and child mortality experience among Guatemalan women," Studies in Family Planning, Vol. 10, No. 4, April, pp. 129-136.

Although conclusions must be drawn cautiously when considering a sample of this size and type, a few points can be made. Our results indicate that even under conditions of an exogenously induced rapid decline in child mortality, women may perceive both the decline and the current child survival chances relatively accurately. Despite their accuracy, perceived child survival chances seem to have little influence on whether or not a woman desires additional children at any parity. Experience with the death of one's siblings and own children, however, does appear to be an important factor. This study found that, at the third and fourth parities, the influence of the death of a woman's own children was greater than the death of her siblings and, at the fifth parity, the influence of sibling deaths was greater.

Thus, it appears that the child mortality experiences affecting a woman's fertility decisions are not only those of her own childbearing years but also those of her own mother's childbearing years, and that these influences are manifested at different life stages, as

represented by parity levels. This suggests that mortality declines must occur over 2 generations (her mother's and her own) to make a significant impact on a woman's desire for additional children. The sampling techniques, the sample size, and the exclusion of a substantial minority of women who gave nonnumeric responses to the question on desired additional children limit our ability to generalize from these results. However, if the relationship we have found between child mortality experience and fertility desires is a more general phenomenon, reductions in child mortality may have the short-term effect of accelerating population growth, until enough experience with decreased mortality is accumulated to effect a change in fertility desires. (AU)

184 **Pereira, R.,** 1980, "Factores socio-culturales y materiales asociados a la mortalidad en los menores de dos años de edad en Bolivia" tesis presentada al Programa Conjunto PLACSO-CELADE de Maestría en Estudios Sociales de la Población, 65 pp.

El análisis de los factores socio-culturales y materiales asociados a la mortalidad en los menores de 2 años en Bolivia revela: a) la presencia de diferencias significativas en los tres estratos ecológicos con probabilidades de muerte que fluctúan entre 158 por mil en los Llanos y 224 por mil en el Valle (p. 17); b) dentro de cada estrato, existen diferenciales de mortalidad en términos de la influencia del grado de urbanización, observándose mayores niveles en las áreas rurales; c) la heterogeneidad al interior de los contextos responde a la presencia de sectores sociales, constatándose que tanto en las áreas urbanas como rurales el estrato medio alto mantiene niveles de mortalidad por debajo del promedio en el Altiplano, el Valle y los Llanos; d) al eliminar el peso de los contextos y de los sectores sociales, se observa un intervalo de variación significativo que sugiere la concurrencia de otros factores como el étnico, ausente en los Llanos, región con los niveles más bajos de mortalidad; e) al considerar el nivel de instrucción, se observa que los hijos de madres sin instrucción exhiben los mayores riesgos de morir aunque la brecha entre este grupo comparado con el de más alta instrucción varía según el contexto y el sector social; f) el análisis de regresión múltiple apunta a dos factores como más estrechamente asociados a la probabilidad de morir entre los 0 y 2 años: el porcentaje de población que habla sólo aymará o quechua (relación positiva) y el promedio de años de estudios de las mujeres de 20-29 años (relación negativa). (DOCPAL)

185 **Pérez, H.**, 1979, "Notas sobre el descenso de la mortalidad en Costa Rica (1866-1973)", San José, Universidad de Costa Rica, presentado en: Seminario Nacional de Demografía, San José, 22-24 agosto, 25 pp.

Con el objeto de medir el ritmo de descenso de la mortalidad en los últimos cien años en Costa Rica, se construyeron tablas de vida para 1866, 1900, 1910, 1920, 1930 y 1940, las que se comparan con las ya publicadas para 1950, 1963 y 1973. En algo más de un siglo, la esperanza de vida al nacer para ambos sexos pasó de 20 a 63 años, con un ritmo de incremento desigual a lo largo del período estudiado. Los cambios más drásticos corresponden a las edades extremas (p. 1) y se corrobora la mayor esperanza de vida entre las mujeres. Durante el siglo XIX, la estabilización de la mortalidad se relaciona con una situación de pleno empleo, basado en la agricultura exportadora, con un perfil de distribución del ingreso que originó cambios cualitativos en la composición del consumo en todas las clases sociales. A ello se suma la difusión de las vacunas y algunos servicios médicos y medidas preventivas. En el siglo XX, el descenso de la mortalidad responde más a los adelantos médicos y a la intensificación de la actividad estatal en el campo de la salud pública. (DOCPAL)

186 **Pérez, R.**, 1980, "Las encuestas nacionales de morbilidad", Revista Cubana de Administración de Salud, Vol. 6, No. 4, octubre-diciembre, pp. 335-342.

Aunque los objetivos de las encuestas de morbilidad varían de un caso a otro, todas comparten características y propósitos básicos. Entre las primeras destacan su polivalencia, su carácter nacional y transversal y en lo fundamental, proporcionan datos sobre los problemas de salud y sus correlatos socio-económicos, permiten establecer la cantidad, estructura y calidad de la demanda de atención médica y recogen información sobre la población que no acude a los servicios de salud. A pesar de sus ventajas, las encuestas están sujetas a errores y dificultades derivadas de la confiabilidad del cuestionario, la elección del entrevistado y la duración del período de retrospección. En Cuba y en el marco de un eficiente sistema nacional de estadística, se han dado los primeros pasos para la realización de este tipo de encuesta, estimándose necesario incluir en ella mayor información de carácter motivacional y psicosocial. (DOCPAL)

187 **Perú, Oficina Nacional de Estadística,** 1980, "Análisis demográfico comparativo a partir de la Encuesta Demográfica de Entrevistas Reiteradas versus la Encuesta Demográfica Retrospectiva", presentado en "Seminario sobre situación demográfica del Perú", noviembre 1978, 47 pp.

El análisis y evaluación de los métodos de recolección y resultados derivados de las encuestas demográficas nacional (EDEN) y retrospectiva (RETRO), realizadas en Perú en 1974-1976 y 1976, respectivamente, se orienta a examinar la coherencia de los niveles de las variables investigadas, así como la idoneidad comparativa de ambos instrumentos. En cuanto a la fecundidad, se observa una gran similitud entre los resultados de ambas encuestas: una tasa global de 5.3 hijos con cifras de 4.1 y 7.7 en las zonas urbanas y rurales respectivamente (p. 14). La calidad de los datos es en ambos casos satisfactoria y para estudios nacionales bastaría el uso de la EDEN en tanto que las estimaciones regionales requieren del uso combinado de la EDEN y la RETRO. Aunque los datos de la EDEN sobre patrones de nupcialidad merecen algunas dudas, se obtuvo por primera vez un panorama general de esta variable. En cuanto a la mortalidad, las estimaciones de ambas encuestas están sujetas a sesgos diferentes siendo de mayor confiabilidad la información recogida a nivel nacional. Los resultados no son tan coincidentes como en el caso de la fecundidad: la EDEN entrega una tasa

bruta de 12.7 por mil, una tasa de mortalidad infantil de 102.1 por mil y una esperanza de vida al nacer de 57.8 años. En la RETRO los niveles alcanzan a 14.1 por mil, 117.4 por mil y 53.1 años, respectivamente (p.33). (DOCPAL)

188 **Preston, S.**, 1982, Biological and social aspects of mortality and the length of life: proceedings of a seminar at Fiuggi, Italy, May 13-16, 1980, International Union for the Scientific Study of Population (IUSSP), Committee on Factors Affecting Mortality and Length of Life, Liège, Belgium, 483 pp.

These are the proceedings of a seminar organized jointly by the IUSSP Committee on Factors Affecting Mortality and Length of Life and the University of Rome's Instituto di Demografia in 1980. The papers are organized under three main topics: environmental and social influences on mortality, genetic and biological influences on mortality, and behavioural influences on mortality. The papers are concerned with mortality in both developed and developing countries. (PI)

189 **Preston, S.**, 1980, "Causes and consequences of mortality declines in less developed countries during the twentieth century," in Easterlin, R. (editor), Population and economic change in developing countries, University of Chicago Press, Chicago, 581 pp., pp. 289-360.

The purpose of this paper is two-fold: (a) to identify factors responsible for mortality improvements in LDCs and offer estimates of their relative importance and (b) to attempt to trace the effect of these improvements on demographic and economic processes. (MF)

190 **Preston, S.**, 1978, "Mortality, morbidity, and development," Population Bulletin of the Economic Commission for Western Asia, No. 15, Beirut, December, pp. 67-75.

The author analyses mortality as a variable dependent on other components of modernization. He attempts to summarize what is known about determinants of mortality levels and to distinquish the effects of general socioeconomic development from those of specific health interventions. (PI)

191 **Preston, S., and U.N. Secretariat,** 1982, "Research strategies for studies of factors affecting mortality," paper presented to UN/WHO Second Project Collaborators' Meeting on Case Studies of Determinants of Mortality Change and Differentials, New York, 15-18 June, 32 pp.

This paper considers in a relatively nontechnical fashion some statistical issues commonly encountered in mortality studies. Initial discussion is organized around some basic decision guidelines for selecting dependent and independent variables for mortality analysis. Some discussion is also included as to the functional forms in which variables are expressed and statistical procedures for their study. (MF)

192 **Raczynski, D.,** 1982, "Controversias sobre reformas al sector salud: Chile, 1973-82", Notas Técnicas No. 52, CIEPLAN, Santiago, 98 pp.

La elaboración e implementación de las reformas al sector salud tendientes a adecuar el sistema de salud a la economía de libre mercado que se estructura en Chile a partir de 1973 ha sido lenta y, aparentemente, llena de tropiezos. Una reestructuración real del sector sólo se inicia en 1980-81. ¿Qué factores contribuyeron a esta demora? En un intento de encontrar respuestas a este interrogante, el presente trabajo describe las controversias en torno a la política de salud, tal como ellas se reflejan en los documentos oficiales y en la prensa escrita, identificando los principales tópicos en debate, los actores que se pronuncian sobre ellos y las orientaciones o posiciones que al respecto manifiestan; se intenta asimismo ordenar las interacciones entre los actores y perfilar una periodización en torno al debate sobre las reformas al sector salud.

Una de las conclusiones del trabajo es que el gremio médico, uno de los actores más importantes en la estructuración del sector y de la política de salud en Chile en el pasado, jugó también durante el período 1973-82 un papel importante contribuyendo a "frenar" una política de salud más acorde con el modelo económico de libre mercado en aplicación. (AU)

193 **Raczynski, D., y Oyarzo, C.**, 1981, "¿Por qué cae la tasa de mortalidad infantil en Chile?" Estudios de CIEPLAN, No. 6, diciembre, Estudio No. 55, pp. 45-83.

La tasa de mortalidad infantil (TMI) sigue bajando de una manera más o menos continua desde 1964; el ritmo de descenso para 1965-73 es muy similar a aquel para 1974-79; hay una leve aceleración (no significativa) desde 1976. Este descenso sorprende, dado el franco deterioro de la situación económica en los últimos años (descenso del producto nacional bruto, de empleo, de salarios y de gastos sobre servicios públicos, mientras que la distribución de ingresos es cada vez más desigual). Muchos indicadores socioeconómicos en 1979 no alcanzan los niveles imperantes alrededor de 1970. Se pregunta entonces cómo explicar el curso de la TMI en el contexto chileno.

Se proponen tres hipótesis: (a) Hipótesis biodemográfica: el descenso de la tasa bruta de natalidad implica una disminución en los nacimientos de paridez alta y una mayor concentración de los nacimientos en el grupo de edad 20-34 años. Esta hipótesis no está comprobada por los hechos, el descenso de la TMI afecta todos los grupos de edad y cada nivel de paridez. (b) Hipótesis socio-demográfica: i.e. el cambio en la estructura de los nacimientos por grupo socioeconómico (según grado de instrucción de la madre); este factor ha contribuído al descenso de la TMI pero tampoco explica el ritmo de su descenso continuo. (c) Ha habido un incremento significativo de las prestaciones médicas al sector materno-infantil y un programa importante de alimentación complementaria:

- para el período 1974-79 hay un aumento de recursos y y prestaciones médicos dirigidos al sector materno-infantil contrariamente a la situación de la población en general).

- el PNAC (Programa Nacional de Alimentación Complementaria) del SNS (Servicio Nacional de Salud) provee leche a niños lactantes y pre-escolares (menos de 6 años) y a mujeres embarazadas y nodrizas; junto con el PNAC desde 1978 la OFASA (Obra Filantrópica de Asistencia Social Adventista) suplementa de aproximadamente 10% las cantidades de leche repartida por el PNAC.

- Programa de Centros Cerrados de Recuperación Nutricional del CONIN (Corporación para la Nutrición Infantil); este programa se inició en 1975 y se extendió al nivel nacional a partir de 1977. Entre 1978-80 habían ingresado 6,647 niños de 0-2 años, de los cuales 76% eran menores de un año.

En conclusión, es sobre todo (y casi exclusivamente) la tercera hipótesis que queda comprobada, - que son los programas médicos dirigidos hacia el sector materno-infantil y el programa de alimentación complementaria que han contribuído al fuerte descenso de la TMI en el sexenio 1974-79. (MF)

194 **Ramos, H.**, 1981, "Mortalidad infantil y atención materno-infantil en el Perú", Santiago, CELADE, (Serie L 108), presentado en: Seminario de Análisis y Capacitación de la Encuesta Mundial de Fecundidad, 59 pp.

La investigación sobre mortalidad infantil y atención materno-infantil en Perú se inscribe dentro de los objetivos del Seminario de Análisis y Capacitación con datos de la Encuesta Mundial de Fecundidad. En la primera parte se examinan los niveles y tendencias de la mortalidad infantil a partir de 1940, explorándose los determinantes económicos, culturales, sociales y regionales del fenómeno. La segunda parte se centra en los niveles de atención materno-infantil, precisándose la relación entre el acceso y uso de los servicios de salud y las condiciones económicas y sociales de la población, por un lado, y los niveles de mortalidad infantil, por el otro. (DOCPAL)

195 **Rashad, H.,** 1981, "The estimation of mortality: new methods and variations of the known ones," In: IUSSP, International Population Conference: solicited papers, Manila, Vol. 3, pp. 363-373.

Advances in indirect mortality estimation over the last 4 years are reviewed. "Two broad categories of methods are considered. The first analyzes less conventional data to obtain measures of mortality and includes procedures for estimating infant, childhood and adult mortality from survivorship reports of births, parents, kin and spouses. The second manipulates defective death registration data to obtain plausible measures." (PI)

196 **Ratcliffe, J.,** 1978, "Social justice and the demographic transition: lessons from India's Kerala State," International Journal of Health Services, Vol. 8, No. 1, pp. 123-144.

Kerala is a small, densely crowded state in South India. It is a poor state, even by Indian standards. Its per capita income of U.S. $80 lies well below the all-India average of U.S. $120, and it suffers from the lowest per capita caloric intake in India. Nevertheless, Kerala has managed to achieve the demographic transition from high (premodern) to low (modern) birth and death rates - something no other Indian state has been able to attain. Indeed, the magnitude of Kerala's fertility decline - the birth rate fell from 39 in 1961 to 26.5 in 1974 - has never before been observed in a nation with comparable levels of income and undernutrition. Other indices of Kerala's social development are equally suprising: levels of literacy, life expectancy, female education, and age at marriage are the highest in India, while mortality rates, including infant and child mortality, are the lowest among Indian states.

But Kerala's anomalous and unexpected demographic trends and levels are not the result of the direct interventions designed to influence health and fertility levels elsewhere in India - conventional strategies of population control and health services delivery that, thus far, are notable for their failure to generate such positive results. Instead, Kerala's demographic levels evidently reflect a broad social response to structural reforms in its political economy. (AU)

197 **Riverón, R.; Gutiérrez, J.; y Valdés, F.**, 1981, "Mortalidad infantil en Cuba, 1970-1979", Revista Cubana de Administración de Salud, (Havana), 7(2), abril-junio, pp. 143-52.

Los autores examinan los diversos factores asociados con el descenso de la mortalidad infantil en Cuba entre 1970 y 1979. Se comentan las variaciones en el nivel de mortalidad infantil según provincia, causas de muerte, y el papel de los servicios de salud.(MF)

198 **Rodgers, G.**, 1979, "Income and inequality as determinants of mortality: an international cross-section analysis," Population Studies, Vol. 33, No. 2, July, pp. 343-352.

This paper analyses the effects of income and income distribution on mortality. The likely relation between income and mortality for individuals is discussed and implications for the determinants of mortality at the community level inferred. Measures of income inequality are likely to be related to mortality on aggregate data because of the nonlinearity of income effects. An international cross-section analysis is then undertaken in which different measures of income and income distribution are investigated as determinants of mortality, with life expectancy at birth and age 5, and infant mortality taken as measures of the dependent variable. It is found that income distribution is consistently and strongly related to mortality; in a relatively nonegalitarian country life expectancy may be between 5 and 10 years lower than in a more egalitarian country. (AU)

199 **Rodriguez S.**, 1979, "Birth rate, infant mortality, and maternal mortality: Chile, 1964-1977,"Revista Chilena de Obstetricia y Ginecologia, Vol. 44, No. 4, pp. 140-145.

Trends in mortality in Chile over the period 1964-77 are reviewed. Substantial reductions in maternal, infant, and abortion mortality are recorded. (PI)

200 **Rosenzweig, M., and Schultz, T.,** 1981, "Child mortality and fertility in Colombia: individual and community effects," Center Discussion Paper, No. 380, July, New Haven, Conn., Yale University, Economic Growth Center, 66 pp.

The authors assess the interactions between the impacts on child mortality and fertility of mother's education, health and family planning programs, and the health environment in which a household resides. The analysis is based on data from the 1973 Colombian census and on data for approximately 900 municipalities. "(The) empirical findings, based on separate urban and rural samples for mothers in 5-year age-groups, confirm the importance of formal schooling for given levels of programs in augmenting child survival in both rural and urban areas of Colombia. Moreover, child mortality and fertility are most affected by health program interventions in urban families with less educated mothers." No effects of program interventions are found for rural populations. (PI)

201 **Ruzicka, L., and Hansluwka, H.,** 1982, "Mortality transition in South and East Asia: technology confronts poverty," Population and Development Review, Vol. 8, No. 3, September, pp. 567-588.

Available data, often of a fragmentary nature, suggest that the pace of mortality decline in low-income countries of South and East Asia has been slowing in recent years, and in some cases a reversal of the downward trend may even have set in. The near stagnation of mortality levels is occurring at higher levels of mortality than previously anticipated: it appears to reflect widening within-country mortality differentials; and it is paralleling slowdowns in economic growth rates. Three broad areas in which explanations for this trend may be sought are: the effect of changes in population structure, the impact of health care strategies and health policies, and the supply and distribution of food. Evidence for the impact on mortality of trends in these areas is reviewed and implications for the future are suggested. (AU)

202 **Sawyer, D.,** 1981, "Effects of industrialization and urbanization on mortality in the developing countries: the case of Brazil," solicited paper, IUSSP, International Population Conference, Manila, Vol. 2, pp. 21-50.

Brazil is taken here as a case study for the examination of the relationship between industrialization, urbanization, and mortality in LDCs, given the large variations between regions and the existence of some differentials and trends that are contrary to conventional wisdom in this area. Estimates of life expectancy at birth (e_0) and the infant mortality rate (IMR) indicate that rural mortality in Brazil in the 1940s and 1950s was lower than urban. Disaggregation of mortality indicators according to different regions of the country point to an accentuation of excess urban mortality in the less-urbanized, less-industrialized areas.

Estimates for the 1960s indicate that in some regions excess urban mortality persists. It is clear, however, that the dimensions of the rural-urban mortality divide in all regions have diminished. Indeed in those regions previously characterized by excess rural mortality there have been greater declines in rural mortality and vice versa.

Despite the significant gain of 9 years in e_0 (between the 1940s and 1960s) the IMR has only declined by 9%. The reduction of the IMR for this period has been due principally to the decrease in urban mortality in the less-developed regions. At the same time there are indications that the IMR has actually increased in urban areas of the more developed regions.

The hypothesis proposed is that e_0 gains have been concentrated in adult mortality decline and that internal migration has contributed to the decrease in interregional differences. For Sao Paulo (Brazil's most industrialized and urbanized area) the analysis of

mortality trends during the process of urbanization and industrialization leads to the conclusion that the evolution of mortality is not unidirectional in the sense of an uninterrupted decline. In fact for the period 1964-69 to 1970-73 (in the midst of an economic boom) it is estimated that the IMR increased by 46%.

To understand the relationship between mortality on one hand and urbanization and industrialization on the other it is necessary to probe the specific effects of different types of development over time with regard to diverse segments of the population. (MF)

203 **Sawyer, Diana,** 1980, "Relações entre mortalidade e fecundidade: o caso de São Paulo", mimeo, presentado en: Reunión del Grupo de Trabajo sobre "Procesos de reproducción de la población", Teresópolis, Brasil, 22-25 abril, 67 pp.

El trabajo se orienta a examinar las posibles relaciones entre la mortalidad y la fecundidad así como a reflexionar sobre las tentativas anteriores de especificarlas y/o cuantificarlas. Dada la sujeción de las mismas a condiciones históricas y demográficas concretas, el estudio se inicia con una caracterización de la evolución de la estructura social y de la reproducción en São Paulo, desde el período colonial al presente, identificando los intereses económicos de las distintas clases sociales a partir de las relaciones de producción. El examen detenido en forma separada y conjunta de la mortalidad y de la fecundidad, revela que los niveles elevados de ambas variables corresponden a la subpoblación menos privilegiada en términos de ingreso, ocupación, vivienda, educación y salud. La evidencia empírica, tanto a nivel agregado como a nivel individual no permite precisar cuáles mecanismos operan ni el grado en que existe o no una relación causal directa entre mortalidad y fecundidad, apuntando a la determinación estructural como un hecho central. Las series históricas de tasas agregadas ofrecen escasa o ninguna evidencia del tipo de relaciones aludidas. A pesar del descenso secular de la tasa global de fecundidad y de la tasa de mortalidad infantil, la declinación de la fecundidad antecede a la baja de la mortalidad y, en otros momentos, las curvas se inclinan en direcciones opuestas. A nivel individual existen algunas evidencias a favor del efecto de reposición pero no fue posible aislar dicho efecto de las vinculaciones entre la estructura social y la fecundidad y entre la fecundidad, y la mortalidad. (DOCPAL)

204 **Schultz, P.**, 1979, "Interpretation of relations among mortality, economics of the household, and the health environment", International Labour Organization, Population and Labour Policies Programme, Working Paper, 82 pp.

El esquema de análisis propuesto se orienta a determinar si una proporción significativa de la variación en la mortalidad dentrode los hogares -y quizás dentro de otros agrupamientos- puede ser explicada a partir de comportamientos intencionales o consecuentes, que se ven constreñidos por el ambiente de salud y los recursos humanos y materiales. La taxonomía utilizada considera las posibles fuentes de cambios en la mortalidad, en términos de factores de atención médica, económicos y personales. El marco económico para explicar la variación en las inversiones en salud infantil y su incidencia en la supervivencia - desarrollado en detalle - parte de dos hipótesis centrales: que la morbilidad y la mortalidad infantil dependen del capital de salud del individuo y que todos los padres valoran positivamente la supervivencia de sus hijos. La metodología planteada se ilustra a través de datos censales de Colombia (1973), los que revelan como causas de declinación de la mortalidad la elevación de los salarios, la educación y la urbanización, aunque queda por precisar la influencia específica de estos y otros factores involucrados. (DOCPAL)

205 **Scrimshaw, S.**, 1978, "Infant mortality, and behaviour in the regulation of family size", Population and Development Review", Vol. 4, No. 3, September, pp. 383-403.

Las relaciones entre mortalidad infantil y fecundidad y su incidencia en el control de la natalidad han sido objeto de numerosos análisis, la mayor parte de los cuales parten de dos hipótesis centrales: a) la hipótesis de la supervivencia infantil, relacionada con la percepción que los padres tienen de las condiciones de mortalidad, y en donde la creencia de que los hijos sobrevivirán hasta la edad adulta es considerada como un requisito para la regulación de la natalidad; b) la hipótesis de la reposición de los hijos, que sostiene que cuando un hijo muere la pareja tiende a reponerlo rápidamente. La extensa evidencia empírica analizada en este trabajo revela que estas hipótesis se cumplen en algunos contextos, pero que ni la magnitud ni la duración de sus efectos dan cuenta real de las relaciones entre los fenómenos descritos. Mas aún, se observa que ya en sociedades primitivas y pre-industriales existen esfuerzos deliberados por controlar tanto la mortalidad como la fecundidad. En numerosas sociedades contemporáneas, especialmente en América Latina, se evidencian patrones culturales facilitadores de la morbi-mortalidad infantil junto a medidas de regulación de la fecundidad. (DOCPAL)

206 **Segal, S., and Winikoff, B.,** (editors), 1980, Social Science and Medicine, Part C, Medical Economics, Oxford/Elmsford, N.Y., Vol. 14C, No. 2, June, pp. 61-180.

This special issue contains selected papers originally presented at the fifth conference in the Bellagio Population Conference series, Bellagio, Italy, April 18-21, 1979. (PI)

207 **Sivamurthy, M.,** 1981, "The deceleration of mortality decline in Asian countries," solicited paper, IUSSP, International Population Conference, Vol. 2, pp. 51-76.

This is an examination of why mortality declines are starting to slow down and level off in many Asian countries even though mortality levels have not yet become as low as might have been expected. The author uses life table values, preferably those based on vital statistics data, to analyze the deceleration of the mortality decline in India, Japan, Sri Lanka, and the

Philippines. The importance of high infant mortality, child mortality between the ages of 1 and 4, and maternal mortality in the deceleration process in India and Sri Lanka is established, and the causes of this high mortality are examined. (PI)

208 **Smucker, C., Simmons, G., Bernstein, S. and Misra, B.,** 1980, "Neonatal mortality in South Asia: the special role of tetanus," Population Studies, July, Vol. 34, No. 2, July, pp. 321-335.

First-year mortality in rural Uttar Pradesh is characterized by a predominance (60%) of deaths during the first month of life, of which 66% are reported to be due to tetanus. This pattern is not typical of the historical experience of many developed countries and the current experience of some LDCs where postneonatal mortality predominates. To examine this phenomenon, two causal models of neonatal mortality (one for tetanus and one for all other diseases) are developed and tested using retrospective survey data from 2,000 couples living in rural Uttar Pradesh.

Neonatal tetanus mortality is found to be primarily a function of opportunities for exposure to the disease (e.g., lack of antiseptic birth practices, ownership of large animals) rather than of socioeconomic status or demographic variables. The importance of examining neonatal mortality by cause and the shortcomings inherent in making inferences from the historical experiences of Western nations are emphasized. (AU)

209 **Solimano, G.,** 1979, The impact of socio-economic development and ecological change on health and nutrition in Latin America, Santiago, CEPAL, 81 pp.

El anâlisis se centra en el examen de los patrones que surgen de las relaciones entre desarrollo, medio ambiente y salud y nutriciôn en los paîses de Amêrica Latina. En la primera parte se consideran los componentes de dichas relaciones, discutiêndose los nexos indisolubles entre los principales problemas de salud y los factores ambientales, tales como la falta de alimentos, los bajos niveles de saneamiento y los riesgos de la vida diaria y del trabajo. El análsis del estilo de desarrollo, a nivel local, nacional y regional, enfatiza la explotación intensiva del sector agrícola, la rápida industrialización y el desarrollo de valores cambiantes y de nuevos patrones de consumo (derivados de la participación en el sistema capitalista transnacional), como condicionantes de las relaciones descritas. La discusión de las respuestas del sector organizado de salud a la problemática de la región, revela que los mismos elementos responsables de la situación de desarrollo limitan la eficacia de sus acciones, y contribuyen a la mantención de las desigualdades entre los distintos sectores sociales. (DOCPAL)

210 **Solimano, G., and Hakim, P.,** 1979, "Nutrition and national development: the case of Chile," International Journal of Health Services, Vol. 9, No. 3, pp. 495-510.

This study is a historical analysis of food consumption and nutrition in Chile emphasizing the influence of political and economic factors on nutritional standards. It attempts to document and explain the persistence of malnutrition as a widespread social problem in Chile even as the country achieved a relatively advanced state of economic development and boasted an unusually progressive record of social legislation. The major findings of the study were: (a) Chile's pattern of development, social reform efforts notwithstanding, consistently discriminated against low-income groups, and (b) this discrimination perpetuated low standards of nutrition and low levels of food consumption among the country's poor and undermined the effectiveness of specific measures to alleviate malnutrition. (AU)

211 **Solimano, G., and Vine, M.,** 1982, "Malnutrition, infection and infant mortality," in Chapter 4, proceedings, IUSSP Seminar, Biological and social aspects of mortality and the length of life, Ordina Editions, Liège, pp. 83-111.

Malnutrition continues to be a major health problem in the developing world. Malnourished populations are also subject to frequent attacks of infectious diseases. The cycle of malnutrition/recurrent infection/further malnutrition is a major cause of mortality, especially in children. The epidemiology of malnutrition and the nature of its interaction with infections is discussed.

Recent contrary trends in infant mortality rates and nutritional status seem to indicate a dissociation in the traditionally assumed relationship between infant mortality and nutritional status. Inferences about nutritional status that are based upon decreased mortality rates need to be viewed with caution. A distinction is drawn between those historical, geographic, social, and economic conditions that are conditioning factors in malnutrition and factors such as infectious diseases that actually precipitate deaths. The need for more refined analytical techniques and new explanatory hypotheses is discussed. Examples are drawn from the general trends in Latin America and the data from Chile in particular. (AU)

212 **Somoza, J.**, 1980, "Illustrative analysis: infant and child mortality in Colombia," International Statistical Institute and World Fertility Survey, Scientific Report No. 10, 61 pp.

This study illustrates the application of direct and indirect methods for estimating infant and child mortality to data from the Colombian National Fertility Survey conducted in mid-1976 as part of the World Fertility Survey.

The study has two objectives: (a) to show how the data collected in the World Fertility Survey may be used to estimate infant and child mortality, and (b) to produce such estimates for Colombia, a country which - like many other developing countries - lacks satisfactory information on mortality.

This document is organized in six chapters, including a brief introduction. Chapter 2 provides some background material which will prepare the reader for subsequent chapters. It provides information on the data available and points out some of their limitations - particularly regarding sample size - for a study of infant and child mortality. It also includes a discussion of the direct methods used to estimate infant and child mortality. It should be noted that the methods themselves are not original; what is unusual is their application to data from a country like Colombia, where the quality of the demographic data usually available does not permit applying direct methods. The data collected in the Colombian survey do not appear to be affected by serious errors.

Chapter 3 deals with the plausibility of mortality estimates derived from the available data and, more generally, with the study of possible deficiences in the data, especially regarding the omission of children who have died.

Chapter 4 presents the results obtained using direct methods. It includes mortality estimates by 5-year periods, by cohorts of children born in a given period, and by age of mother, as well as estimates for several breakdowns of the population which lead to mortality differentials by sex, urban or rural residence, level of education of the mother, and regions within the country.

Chapter 5 considers the estimation of mortality by applying indirect techniques to data on children ever born and children dead by age of mother (in 5-year groups) at the time of the interview. The Colombian survey included an individual interview, which collected directly from each woman a birth history and a household survey where the information on mortality is limited to children ever born and children dead. The results of both interviews are quite similar. The indirect estimates are compared with those obtained from the individual survey using direct methods.

The document ends with a brief chapter where the more important conclusions of the study are noted. (AU)

213 **Somoza, J.,** 1979, "La medición de la mortalidad a partir de información recogida en una encuesta" en: Macchi (editor), Métodos cuantitativos en las

ciencias sociales: ensayos en memoria del profesor Dr. José Barral Souto, Buenos Aires, pp. 153-167.

Exposición esquemática, destinada a lectores no familiarizados en la materia, de los métodos indirectos desarrollados por los demógrafos para estimar la mortalidad en aquellos países que no cuentan con información directa aceptable de registros anuales o de censos, que permitan calcular tasas de mortalidad por edad. La base teórica consiste en una serie de relaciones matemáticas que se pueden deducir si se suponen leyes de mortalidad y de fecundidad vigentes en una población, que conducen a ciertos indicadores de sobrevivencia. Se ha llegado a establecer una serie de preguntas que se pueden formular en encuestas, que permitan calcular indicadores de sobrevivencia para estimar la mortalidad; se han probado satisfactoriamente en muchas investigaciones la pregunta sobre los hijos nacidos vivos y sobrevivientes de las mujeres de 15 años y más y la pregunta sobre orfandad materna, que permiten determinar, respectivamente, las proporciones de hijos sobrevivientes sobre el total de las madres. Se ilustra el método con los datos de la encuesta de Bolivia de 1975. Otras preguntas que no han sido ampliamente utilizadas se refieren a la orfandad paterna y a la viudez. En una fase experimental está la pregunta sobre la sobrevivencia de hermanos. (DOCPAL)

214 **Sosa, D.**, 1980, "Costa Rica: Efectos de las causas de muerte en el mejoramiento de la esperanza de vida", CELADE, Santiago, presentado en el Curso de Análisis Demográfico Avanzado 1980-81, 56 pp.

Entre 1963 y 1973 Costa Rica ha mejorado significativamente tanto la cobertura del registro de defunciones así como la clasificación de éstas por causas: la proporción de defunciones por causas mal definidas se redujo del 12% al 8% y el subregistro disminuyó del 15% al 8% en ese período (p. 21). La importancia relativa de los grupos de causas de muerte se modifica y por sobre las enfermedades infecciosas y parasitarias y del aparato digestivo, principales causas de muerte en 1963, pasan a tener preeminencia las enfermedades del aparato circulatorio y el cáncer.

Estos grupos de causas afectan diferencialmente a los grupos de edad y su eliminación tiene efectos desiguales en la esperanza de vida. En 1963 y 1973 las ganancias son del orden de 4 y 5 años en casi todos los grupos etáreos, en 1963 se favorece más al grupo de 5 años y en 1973 a los grupos entre 15 y 24 años. Las mayores ganancias se obtienen al eliminar dos grupos de causas de muerte en forma simultánea y especialmente cuando las enfermedades eliminadas son las infecciosas y parasitarias en conjunto con las circulatorias con cifras de 8 y 7 años en 1963 y 1973 respectivamente. (DOCPAL)

215 **Sosa, D.**, 1979, "Interrelación entre la fecundidad y la mortalidad infantil en Costa Rica, 1960-1977", San José, Costa Rica, Comité Nacional de Población, 46 pp.

Con el objeto de estudiar las relaciones entre la fecundidad y la mortalidad infantil, se tomó la evolución de estas dos variables para Costa Rica en el período 1960-1977. A nivel nacional, la tasa de mortalidad infantil desciende un 59%, en tanto la tasa de fecundidad general se reduce en 99 nacimientos por cada mil mujeres en edad fértil (pp. 4-5). A nivel provincial, el mayor descenso relativo de la mortalidad infantil se produce en Cartago con un 63%, en tanto Guanacaste presenta la reducción menor, sólo un 48%. Respecto a las tasas de fecundidad general, la mayor reducción relativa se produce en la provincia de Heredia con un 49.2%, en tanto el valor más bajo lo ofrece Punta Arenas con un 39.6% (p. 8). De acuerdo con los indicadores analizados, las tasas brutas de reproducción más bajas se presentan en San José y Heredia. Alajuela y Artago presentan valores intermedios, en tanto Guanacaste, Punta Arenas y Lizon poseen los valores más altos. Al analizar la estructura de los nacimientos según edad de la madre y orden, se advierten también cambios importantes durante el período considerado. En 1960 los nacimientos de orden 5 y más representaban el 43%, en 1977 ese porcentaje bajó al 19% (p. 14). En relación a la edad de la madre, se advierte que el porcentaje de nacimientos proveniente de madres menores de 20 años se elevó desde un 12 a un 21%, y el de madres con 20 a 24 años de un 29% a 34% en el período 1960-77. Aplicando el método de las regresiones, se analiza la

influencia de los cambios en la estructura de los nacimientos, por edad de la madre y orden de nacimiento, sobre la mortalidad infantil. Se advierte así que el 24% de la disminución de la mortalidad infantil puede ser atribuida al cambio en la distribución por orden, y sólo en un 5% al cambio en la distribución de los nacimientos por edad de la madre (p. 26). (DOCPAL)

216 **Sullivan, J., Cochrane, S., and Kalsbeek, W.,** 1982, "Procedures for collecting and analyzing mortality data in LSMS," World Bank, Population and Human Resources Division, Discussion Paper No. 82-9, 76 pp.

This paper reviews the various techniques that can be used for collecting data on the mortality of infants and children in developing countries and the uses that can be made of that data for describing the living standards and analyzing the determinants of mortality. The assumptions underlying various indirect techniques are discussed as are the sample sizes required to get estimates of significant differences between groups.

The analysis of indirect estimates of mortality is discussed in some detail. Differences in mortality between socioeconomic groups are substantial and pervasive and thus high mortality is part of the high cost of being poor. What is unclear is the degree to which lack of income, ignorance, or lack of access to public health programs are responsible for the high mortality of the poor. Multivariate analysis can be used to address this issue. A number of such studies have recently been completed analyzing the determinants of mortality at the individual and household levels. These are reviewed in the latter portion of this paper and the recommendations on data collection are then summarized. (AU)

217 **Tabutin, D.,** 1981, "Avantages comparés des enquêtes à passages répétés et à passage unique pour la mesure de la mortalité dans les pays en développement," Département de Démographie, Université Catholique de Louvain, Working Paper No. 98, 24 pp.

The author reviews the estimation techniques used in multiround and single-round surveys and discusses the respective advantages of each type of survey in the study of mortality in developing countries. Emphasis is on the advantages of multiround surveys. (PI)

218 **Tabutin, D.,** 1977, "Comparaison de diverses approches pour la mesure de la mortalité aux jeunes âges," Genus, Vol. 33, Nos. 3-4.

This paper aims at comparing the measures of mortality at young ages given by several kinds of observation (retrospective observation over the last 12 months; retrospective observation of birth cohorts; follow-up observation; Brass, Sullivan, and Trussell methods; and finally vital registration). Thanks namely to its 1969-71 national three rounds survey as well as its 1970 fertility survey, Algeria is presumably the only country where it is possible to compare these several methods in an independent way.

Finally, this comparative study confirms the pessimism we can have about only retrospective observation. Indeed, mortality is underestimated in it, not only as a whole (not a very suprising result), but also in a very differential way according to sex and dwelling sector. For instance, it is necessary to have a follow-up observation so that a phenomenon such as excess female mortality from 1 to 20 years can clearly appear; the indirect survival methods give, in the Algerian case, a global mortality index (from birth up to 3 to 5 years) very close to the follow-up observation measure; the choice of the index to retain ($_2q_0$, $_3q_0$ or $_5q_0$) is nevertheless more delicate upon examination of the results according to dwelling sector. (AU)

219 **Taucher, E.,** 1982a, "Effects of declining fertility on infant mortality levels: a study based on data from five Latin American countries," unpublished report to the Ford Foundation and the Rockefeller Foundation, 46 pp. plus Annex of Tables (34).

The study of the effect of the decline in fertility on the infant mortality level was based on two hypotheses: (a) that changes in the structure of births with respect to birth order, mother's age, and length of time between births due to the decline in fertility contribute to the reduction in infant mortality, and (b) that the infant mortality differentials with respect to these same variables are primarily biological in nature.

To investigate the truth of these hypotheses data were analyzed from five Latin American countries: Chile, Costa Rica, Mexico, Paraguay, and Peru.

The conclusions which may be derived from the research findings are that the changes in structure of births caused by the decline in fertility favour a lower infant mortality level and that the differentials in terms of birth order, mother's age, and interval between births may be considered primarily biological in nature.

The first conclusion lends validity to the objective of decreasing infant mortality, which is proposed in many family planning programs. The second indicates that contraception should be accessible to all women, no matter what their socioeconomic condition, so that their children may be born a sufficient distance apart, so that they may avoid having children at the extremes of reproductive ages or when they have already had many children. The large differences in mortality observed between children of mothers with different levels of education, on the other hand, indicate the need to correct the adverse socioeconomic conditions which lead to the high mortality rate in lower level groups and, as long as this occurs, to supply them with services such as supplementary food programs, environmental health, and reinforcement of medical care. (AU)

220 **Taucher, E.**, 1982b, "The influence of family planning programmes on infant mortality levels," CELADE, mimeo, 23 pp. plus 15 tables annexed.

This paper deals with the effect of family planning on infant mortality. First, the rationale for such an effect is analyzed. Subsequently, some research findings and their policy implications are presented.

Finally, some program aspects in relation with the measurement of their effects on infant mortality are discussed as well as some guidelines as to the needs of future research in this area. (MF)

221 **Taucher, E.,** 1981, "Chile: mortalidad de 1 a 4 años de edad. Tendencias y causas". Notas de Población, (San José), 9(26), agosto, pp. 27-54.

El gran descenso de la mortalidad infantil observado en las dos últimas décadas despierta el interés por examinar lo que ha sucedido, simultáneamente, con la mortalidad de 1 a 4 años de edad.

Se utilizan para el presente análisis tasas centrales de mortalidad y probabilidades de muerte calculadas con el método de Greville, a partir de datos de nacimientos y defunciones. Se estudian las tendencias de la mortalidad del grupo entre 1961 y 1978, los diferenciales por sexo y las causas de muerte.

Se encuentra que la mortalidad de 1 a 4 años ha experimentado un importante descenso en el período analizado, principalmente por la disminución de la mortalidad por enfermedades respiratorias, por diarreas y por enfermedades evitables por vacunación.

Para que en el futuro la tasa de Chile pudiera acercarse a la de países más desarrollados, deberían continuar los descensos de la mortalidad por enfermedades respiratorias y por diarreas, y lograrse una reducción substancial de la mortalidad por accidentes y violencias, cuyo nivel no varió en el período estudiado, constituyendo en este momento la primera causa de muerte en el grupo de 1 a 4 años de edad. (AU)

222 **Taucher, E.,** 1979, "La mortalidad infantil en Chile", Notas de Población, Año 7, No. 2, pp. 35-72.

Durante 1961-1975, la mortalidad infantil en Chile experimentó un descenso de 109 a 54 por mil (p. 35). Se intenta identificar y explicar los determinantes de este fenómeno. Se encontró que este descenso se debe principalmente a la reducción de la mortalidad postneonatal. Después de 1966 disminuye la mortalidad de los menores de 28 días, lo que imprime mayor intensidad de descenso de la tasa total. Las causas que explican tal evolución se pueden agrupar en tres categorías: el mejoramiento del nivel de vida; el desarrollo de programas de salud materno-infantil y de alimentación complementaria; y el descenso de la natalidad a partir de 1964. La relación entre el nivel de vida y la mortalidad infantil queda en evidencia a través de las diferencias de mortalidad observadas por categoría ocupacional del padre y por el nivel de instrucción de la madre; los hijos de empleados y de madres con instrucción secundaria o superior son los que están en situación más favorable, en contraposición a los hijos de obreros y de madres sin instrucción, que tienen el riesgo de muerte más alto. Entre las acciones desarrolladas por los programas de salud materno-infantil, se señalan el control de la embarazada y del niño sano, la atención intrahospitalaria del parto, el tratamiento de las patologías de la madre y del niño, la educación sanitaria de las madres y la alimentación complementaria de la embarazada, la nodriza y el niño. La reducción de la natalidad puede actuar como causa de descenso de la mortalidad infantil mediante 2 mecanismos: a través de la concentración de los recursos de salud en un menor número de niños, y por cambios de estructura en los nacimientos. (AU)

223 **Teller, C., Culagovski, M., y Aranda, J.**, 1980, "Interrelación desnutrición, población y desarrollo social y económico: memorias de un seminario regional", Instituto de Nutrición de Centro América y Panamá, presentado en "Seminario Latinoamericano sobre Interrelación Desnutrición, Población y Desarrollo Social y Económico", Antigua, Guatemala, septiembre 1979, 445 pp.

Los trabajos presentados al primer seminario latinoamericano sobre la interrelación desnutrición, población y desarrollo económico y social, realizado en Guatemala en 1979, giró en torno a tres temas centrales: la compleja red de relaciones entre los fenómenos enumerados; la incorporación del componente demográfico en la planificación alimentario-nutricional; los avances metodológicos en la demografía de la desnutrición. La transcripción de las ponencias y de los comentarios a las mismas se complementa con la presentación de las discusiones y conclusiones de las mesas redondas. Asimismo, se incluyen los informes de los grupos de discusión y el informe final de conclusiones y recomendaciones emanadas del evento. Los anexos detallan el programa, los participantes y la guía que orientó las discusiones en los grupos de trabajo.

Entre las principales conclusiones del informe consolidado del seminario destacan: a) la importancia atribuida a la interrelación nutrición-población-desarrollo, en donde la desnutrición es expresión y elemento causal del subdesarrollo; b) la forma específica que asume dicha relación según las etapas y modalidades del desarrollo dentro de cada país y la presencia de expresiones diferenciales en los distintos grupos socioeconómicos; c) la necesidad de enfoques multisectoriales en el diseño de planes y políticas frente a una problemática multifacética como es la nutricional; d) el papel central del factor población en las etapas de diagnóstico, formulación y evaluación de planes y programas. Las recomendaciones generales y específicas derivadas de estas conclusiones apuntan a la formulación de un modelo analítico-causal que especifique las relaciones nutrición-población-desarrollo, y a la realización de seminarios y talleres que permitan profundizar en estas relaciones. (DOCPAL)

224 **Teller, C., Sibrian, R.. Talavera, C., Bent, V., Del Canto, J., and Saenz, L.,** 1979a, "Population and nutrition: implications of sociodemographic trends and differentials for food and nutrition policy in Central America and Panama," Ecology of Food and Nutrition, Vol. 8, pp. 95-109.

This paper looks into some of the sociodemographic trends and differentials that may be influencing the lack of improvement in the food and nutrition situation in rural Central America. Evidence is presented which indicates that it is more difficult to reduce malnutrition and fertility than it was initially to reduce infant and child mortality. When sociostructural changes are not forthcoming after the initiation of the mortality decline, then resultant population growth, distribution, and composition dynamics can hinder improvement in nutrition. In particular, changes in the social composition differentials as a result of selectivity in mortality, fertility, and migration have apparently contributed to the increasing nutrition gap between the well-fed and the poorly fed classes. (AU)

225 **Teller, C., Díaz, H., Erwin, R., Delgado, H., Sáenz, L., y Aranda P.,** 1979b, "Recent macro and micro trends in child mortality and malnutrition and their interrelationship in Central America and Panama", paper presented at the 1979 PAA meeting, Philadelphia, 12 pp.

El examen de las relaciones entre nutrición y mortalidad infantil en Guatemala, Costa Rica y Panamá, se realiza a nivel nacional y local en 4 áreas rurales aplicando el método de Feeney para la obtención de las tendencias de la mortalidad cuando los registros son deficientes. De los 3 países, Costa Rica y Panamá exhiben descensos marcados en la mortalidad post-neonatal entre 1960 y 1976, siendo Costa Rica el único país que logra una disminución de las defunciones por desnutrición. Las 4 áreas rurales estudiadas cuentan con proyectos del Instituto de Nutrición de Centro América y Panamá (INCAP) que proporcionan información sobre supervivencia; son localidades pobres, representativas de la heterogeneidad socio-cultural y agraria de la región. Todas ellas exhiben una baja en la mortalidad de los últimos 15 años con niveles superiores previo la implementación de programas alimentarios. Un re-examen de los datos con el objeto de pesquisar la presencia de un mejoramiento en las condiciones nutricionales, paralelo al descenso de la mortalidad, revela que la localidad con tasas más bajas (66.5%) y el mayor descenso (51.8%) no posee los niveles más bajos de desnutrición. Por otra parte las dos áreas con los niveles más elevados de mortalidad exhiben tasas más altas de desnutrición. (DOCPAL)

226 **Thapa, S., and Retherford, R.,** 1982, "Infant mortality estimates based on the 1976 Nepal

Fertility Survey," Population Studies, London, Vol. 36, No. 1, March, pp. 61-80.

Infant mortality trends based on the 1976 Nepal Fertility Survey are estimated in two ways, directly from maternity histories and indirectly from child-survivorship data. The indirect estimates are sensitive to choice of standard life table; hence, the direct estimates based on maternity histories are preferred. Direct estimates indicate that infant mortality declined from about 182 deaths/1,000 live births in the early 1960s to about 156 in the early 1970s. High sex ratios at birth before 1960 suggest that infant mortality was substantially underreported at that time. Differential infant mortality is estimated by mother's age at childbirth, birth order, length of previous birth interval, sex of infant, region, urban-rural residence, father's literacy, and father's education. (PI)

227 **Torrez, H.**, 1980, "Bolivia: diagnóstico y factores explicativos en la mortalidad de la niñez, Censo 1976", La Paz, 72 pp.

Con base en datos aportados por el censo de 1976, se analizan aspectos de la mortalidad infantil en Bolivia y sus regiones. Para el total del país, se encontró que de cada mil niños que nacen anualmente, 213 de ellos mueren antes de cumplir los dos años de vida. Al desagregar la información, a nivel espacial y social, se observan importantes diferencias; la región de los Llanos presenta una tasa de 160 por mil, el Altiplano 217 por mil y los Valles 250 por mil (p. 53). Al interior de las regiones la mortalidad se eleva a medida que disminuye el grado de urbanización: se comprobó que la mortalidad del contexto rural alto excede la de la ciudad principal en un 47% en el Altiplano, en un 104% en los Valles y en un 56% en los Llanos. El efecto combinado entre región geográfica, contexto y grupo social, revela que la mayor diferencia entre los niveles de mortalidad se encuentran al comparar el medio-alto de las ciudades secundarias de los Llanos (68 por mil) y el agrícola no-asalariado del contexto rural-alto de los Valles (29 por mil) (p. 56). Entre los factores socioculturales que afectan la mortalidad, el análisis

de correlación y regresión indica una alta correlación directa entre el monolingüismo (Quechua o Aymará) de las mujeres y los índices de mortalidad de sus hijos. También se encontró una correlación inversa con el promedio de años de estudio, es decir, a mayor instrucción de la madre menores serán los riesgos de mortalidad infantil. (DOCPAL)

228 Trussell, T., and Hill, K., 1980, "Fertility and mortality estimation from the Panama Retrospective Demographic Survey, 1976," Population Studies, November, Vol. 34, No. 3, pp. 551-563.

Data from the Retrospective Demographic Survey of Panama offer a unique opportunity to test a wide range of methods for estimating indirectly basic demographic parameters from inaccurate and incomplete data. The primary emphasis is to evaluate methods for estimating adult mortality from information on widowhood and orphanhood, although estimates of childhood mortality obtained from information on sibling and child survivorship are assessed as well. The results for most of the estimating procedures are consistent; this finding is encouraging because it lends support to the hypothesis that the techniques can provide good estimates of mortality. Methods which produce results which are inconsistent provide valuable lessons. In particular, methods for providing unconditional estimates of values of l_x for adults by combining directly information on childhood mortality and adult mortality are shown to produce estimates which predominantly reflect the level of childhood mortality employed. Furthermore, within-method consistency of estimates appears to be a very poor indicator of reliable performance of the estimating technique or quality of data, since most methods yielded estimates which were internally consistent, although estimates made by different methods could differ considerably. In summary, the analysis indicates a birth rate of around 35/1,000, a death rate of around 7.5/1,000, a total fertility rate of about 4.8, and expectations of life at birth of approximately 59 and 64 years for men and women, respectively. (AU)

229 Trussell, J., and Preston, S., 1981, "Estimating the covariates of mortality from retrospective reports of mothers," paper presented at the 1981 PAA meeting, "Current research in mortality: methods, data, and findings" session.

The authors compare various models for estimating the covariates of childhood mortality. Specifically, they examine how much precision is lost as various pieces of information, such as dates of birth and death of each child, are discarded. The conclusion reached is that even incomplete mortality data of the type collected in household surveys or censuses can yield estimates that are very close to those based on the much greater wealth of data collected in detailed maternity histories. Two substantive conclusions of interest are that in the two countries examined (Sri Lanka and Korea) education of father has a significant and pronounced effect on childhood mortality even when mother's education is controlled and that once other covariates are controlled there is no difference between urban and rural childhood mortality. (AU)

230 **UN, Fondo de las Naciones Unidas para la Infancia (UNICEF) Santiago; y UN, CEPAL,** 1979, Indicadores sobre la situación de la infancia en América Latina, Santiago, 1979, 279 pp.

Se presenta una selección de indicadores y de estadísticas sobre la niñez en Latinoamérica. Se presentan separadamente datos sobre la infancia, el niño escolar y los adolescentes. Se incluyen capítulos sobre la evolución de la mortalidad, diferencias regionales y étnicas de la mortalidad infantil, y factores sociales asociados con la mortalidad infantil. (AU)

231 **UNICEF,** 1979, Situación de la infancia en América Latina y el Caribe, Santiago, 630 pp.

El estudio de la situación de la infancia en América Latina y el Caribe, preparado por UNICEF en base a documentos preparados por numerosos expertos, no sólo se orienta a poner un volumen importante de antecedentes a disposición de los gobiernos, sino también a estimular la reflexión en torno al grupo etáreo más numeroso de la región. El volumen consta de 4 partes. La primera de ellas analiza las condiciones sociales imperantes y su impacto en la niñez, destacando las tendencias demográficas y económicas, los componentes sectoriales del nivel de vida y la situación de las categorías sumergidas. En la segunda parte, se examinan las políticas sectoriales especiales orientadas hacia la infancia. La tercera parte discute algunas experiencias e innovaciones en favor de la infancia, con énfasis en los programas de desarrollo social, los programas integrados y la participación de la comunidad, los servicios de salud, educación, alimentación y nutrición. La cuarta parte contiene una recapitulación de los principales problemas, tendencias y orientaciones analizadas. (DOCPAL)

232 **United Nations, Department of International Economic and Social Affairs,** 1982a, Levels and trends of mortality since 1950, Pub. Order No. E81.XIII.3, No. ST/ESA/SER.A/74, 177 pp.

This is the first comprehensive review of international mortality levels and trends published by the United Nations since 1962. Separate chapters are included on the more developed countries, Africa, Asia, and Latin America. The time frame for the study is from around 1950 to the mid-1970s, and specific topics covered include age and sex differentials in mortality; mortality in infancy and early childhood; differential mortality by urban or rural residence and socioeconomic characteristics, including education, income, occupation, and social class; and morbidity and causes of death. (PI)

233 **United Nations, Department of International Economic and Social Affairs,** 1982b, "Model life tables for developing countries," Population Studies No. 77, ST/ESA/SER.A/77, 351 pp.

This study contains new model life tables for developing countries. The tables, which update those published by Coale and Demeny in 1966, provide new sets of age-sex patterns of mortality that are based on reliably documented data for selected developing countries. The data cover all major regions except sub-Saharan Africa. Chapters are included describing "the sources of data, the methodology for construction of the new tables, the age patterns themselves and approaches to their use. The five annexes present the model life tables, single-year mortality under age five,...five- and ten-year life table survival rates, and methodological descriptions of the input data." (PI)

234 **Université Catholique de Louvain, Département de Démographie, Louvain-la-Neuve, Belgium,** 1980, La mortalité des enfants dans le tiers-monde: orientations et méthodes de recherche, Chaire Quételet 1979, Liège, Ordina Editions, 225 pp.

These proceedings contain a background paper on infant mortality in developing countries; papers on infant mortality among the Inuit of New Quebec, mortality at young ages and causes of death in Ghana, and infant and child mortality in Yaoundé; and a summary of the discussions. (PI)

235 **Université Catholique de Louvain, Département de Démographie, Louvain-la-Neuve, Belgium; Université Catholique de Louvain, Unité d'Epidémiologie, Louvain-la-Neuve, Belgium; and Institut de Médecine Tropicale, Unité de Nutrition, Kinshasa, Zaire,** 1981, "La mortalité aux jeunes âges: un essai d'approche explicative interdisciplinaire," Département de Démographie, Working Paper No. 106, 23 pp.

This paper describes an interdisciplinary approach to the development of an analytical framework for the study of child ortality. The approach involves taking the crude death rate as the point of departure, disentangling the various medical and epidemiological causes of death, and then proceeding to identify the social, cultural, and behavioural factors affecting causes of

death. The paper illustrates how specific models of the causes of child mortality can be developed using such a framework. (PI)

236 **U.S. Bureau of the Census (Washington, D. C., U.S.A)**, 1978, "Measurement of infant mortality in less developed countries", 20 pp.

Se examina la factibilidad de obtener estimaciones de la mortalidad infantil en 52 países en desarrollo, los procedimientos que se utilizan para ello y la disponibilidad de datos básicos. La información anual sobre la mortalidad infantil puede provenir de un sistema nacional de estadísticas vitales o de una encuesta continua nacional; no es frecuente hallar datos aceptables de algunas de estas fuentes en los países en desarrollo. Solo 11 de los 52 países considerados tenían sistemas de estadísticas vitales aceptables; de ellos, 9 eran latinoamericanos; sólo dos países llevaban encuestas continuas, pero estaban suspendidas. En ausencia de registros aceptables, o encuestas, los países pueden estimar la mortalidad infantil a base de datos censales o encuestas realizadas para estos efectos. La mayoría de los países posee datos sobre la mortalidad infantil proveniente de al menos un censo o encuesta y, por lo tanto, tienen una estimación para un punto en el tiempo. Sólo 16 países tienen información disponible de dos o más fuentes y sólo 7 países tienen de 3 o más. En estos países, aunque se cuenta con los datos año por año, se puede tener idea de la tendencia de la mortalidad infantil. Estos resultados llevan a la conclusión que no tiene sentido preparar informes anuales sobre los progresos en la mortalidad infantil, sino que más bien pueden hacerse cada 3 o 4 años. (DOCPAL)

237 **U.S. National Academy of Sciences, Committee on Population and Development**, 1979, Preliminary report of the panel on Brazil, Washington, D.C., presentado en, "Panel on Brazil", Teresopolis, Brasil, 14-18 mayo.

La fecundidad y la mortalidad en Brasil, entre 1950 y 1976, se estimaron mediante los distinos métodos desarrollados recientemente, a partir de datos censales, de encuestas de hogares y de fecundidad, y de las estadísticas vitales. Los resultados revelaron un sustancial descenso de la mortalidad, que en su mayor parte se verificó en el decenio 1950-60; la esperanza de vida para 1974-75 se estimó en 60.51 años par ambos sexos (p. 2-57). Por el contrario, los cambios en la fecundidad parecen comenzar aproximadamente a partir de 1965, habiéndose mantenido antes prácticamente constante; la tasa global de fecundidad se estimó, para alrededor de 1970, en 5.32 (p. 3-25).

La estimación de la mortalidad brasileña por regiones, en el período 1950-1976, se basó en los 3 últimos censos de población, las encuestas PNAD y los registros de estadísticas vitales. El procedimiento consistió en estimar por separado la mortalidad de la niñez y la adulta. La primera se estimó mediante el método de Brass, variante Trussel; para calcular la adulta se aplicaron factores de corrección a los registros, determinados por los métodos de Brass y Preston. La tabla de mortalidad para el conjunto de la población se construyó aplicando el sistema logito. Los resultados reflejaron una sustancial declinación de la mortalidad, la que, en su mayor parte, se verificó entre 1950-1960, excepto en la región Nordeste, donde se concentró en la década 60-70; además se destaca una disminución del diferencial rural-urbano. Los datos provenientes de las encuestas posteriores a 1970 no son muy regulares; sin embargo, revelan la misma tendencia descendente de los años anteriores. La esperanza de vida al nacer, para ambos sexos, se estimó en 53.10 y 60.51, en 1960 y 1974-75, respectivamente (p. 2-57). (DOCPAL)

238 Vallin, J., 1977, "World trends in infant mortality since 1950," World Health Statistics Report, Vol. 29, No. 11, pp. 646-674.

The author begins "by making a rapid assessment of the value of the available data before outlining a current survey of infant mortality in the world. This (is) followed by a review of the trends observed since 1950, then by an analysis of distribution by age and cause of deaths in early childhood." (PI)

239 **Vetter, D., y Simões, C.,** 1981, "Acceso a infraestrutura de saneamento básico e mortalidade", Revista Brasileira de Estatística, No. 165, Año XLII, janeiro-março, pp. 17-35.

Los autores examinan la relación entre mortalidad y la disponibilidad de servicios de salud pública en dos regiones metropolitanas de Brasil. Se usan esperanzas de vida de niños de diferentes grupos de ingreso para determinar la influencia sobre mortalidad del abastecimiento del hogar con servicios de agua y desagüe. (AU)

240 **Victoria, C., and Blank, N.,** 1980, "Epidemiology of infant mortality in Rio Grande do Sul Brazil: the influence of agricultural production," Journal of Tropical Medicine and Hygiene, Vol. 83, pp. 177-186.

Infant mortality rates (IMRs) for the 24 districts of the State of Rio Grande do Sul, Brazil, for 1972, have been correlated to 12 variables representative of the state's agrarian structure, as well as five other socioeconomic variables, through Pearson's correlation coefficient and multiple linear regression. The IMR was found to be significantly larger in the districts characterized by large properties; cattle raising and wage earning, rather than in the districts of small properties, agriculture and large rural population. The IMR was not found to be correlated to the variables representing education, housing, medical care, or availability of banks, but there was a direct association with the sanitation variable. A multiple linear regression equation was then obtained, in which the agrarian variables accounted for 70% of the variation in the IMR, while the nonagrarian ones accounted for 13%. These findings support the hypothesis that the agrarian structure of Rio Grande do Sul may influence the observed distribution of the IMR in the state, while other variables specifically related to the preservation and restoration of health do not seem to play an important role. (AU)

241 **Walsh, J., and Warren, K.,** 1980, "Selective primary health care: an interim strategy for disease control in developing Countries," Social Science and Medicine, Vol. 14C, pp. 145-162.

Priorities among the infectious diseases affecting the 3 billion people in the less-developed world have been based on prevalence, morbidity, mortality, and feasibility of control. With these priorities in mind, a program of selective primary health care is compared with other approaches and suggested as the most cost-effective form of medical intervention in the least-developed countries. A flexible program delivered by either fixed or mobile units might include measles and diptheria pertussis tetanus vaccination, treatment for febrile malaria and oral rehydration for diarrhea in children, and tetanus toxoid and encouragement of breast-feeding in mothers. Other interventions might be added on the basis of regional needs and new developments. For major diseases for which control measures are inadequate, research is an inexpensive approach on the basis of cost per infected person per year. (AU)

242 **Wenlock, R.,** 1979, "Social factors, nutrition and child mortality in a rural subsistance economy," Ecology of Food and Nutrition, Vol. 8, No. 4, London, pp. 227-240.

The results of the National Nutrition Sciences Survey of Zambia are used to identify the major social and nutritional factors associated with child death rates in the rural areas. Factors considered include the parity of the mother, tribe and educational attainment of the parents, and father's occupation. The need for public health measures is discussed. Malaria is also underscored as an important health problem. (PI)

243 **Williamson, N.,** 1982, "An attempt to reduce infant and child mortality in Bohol, Philippines," Studies in Family Planning, Vol. 13, No. 4, April, pp. 106-117.

Development agencies are increasingly interested in how primary health care can be provided to rural populations in developing countries. This paper describes a maternal and child health/family planning project that attempted to improve health and reduce mortality and fertility in a large rural population in Bohol, Philippines. Although health services clearly improved and fertility declined, infant mortality remained around 70/1,000. It became evident that easier-to-control diseases like neonatal tetanus were no longer of major demographic significance. Respiratory infections, possibly interacting with inadequate nutrition, were important causes of infant and child death. Also, living conditions in Bohol had stagnated, and a more comprehensive primary health care approach, which would also tackle environmental conditions, was prohibitively expensive. As more countries attain moderate levels of infant mortality and have difficulty improving living conditions, they may encounter similar difficulties. (AU)

244 **Winikoff, B.,** 1982, "Weaning, nutrition, morbidity and mortality consequences," in: proceedings, IUSSP seminar, Biological and social aspects of mortality and length of life, Ordina Editions, Liège, pp. 113-150.

The health consequences of breast-feeding and its cessation are considered. Various patterns of weaning are described, and their relationships to patterns of morbidity and mortality are reviewed. The vulnerable status of children being weaned is duscussed, with particular attention to decreased growth, vulnerability to certain nutritional syndromes, and increased mortality from infectious diseases. The need for improved health education to alleviate these problems is noted. (PI)

245 **Winikoff, B., and Brown, G.,** 1980, "Nutrition, population and health: theoretical and practical issues," Social Science and Medicine, Vol. 14C, pp. 171-176.

This paper outlines the biological, social, economic, and cultural links between population and health. The role of nutrition in mediating some population health interactions is explained. Particular attention is directed to the effects of: (a) nutrition on the health of children, (b) fertility patterns on health, (c) nutrition on fertility, and (d) health on fertility. Nutritional status at birth and early childhood nutrition are both strongly correlated with mortality risk during childhood. High parity and closely spaced births present health risks for mothers and their children. Maternal nutritional status is probably not very important in determining fertility rates, but patterns of breast-feeding may be. Fertility may also be strongly influenced by the health status of children and the willingness of couples to avail themselves of existing contraceptive services.

Because of the close relationships among health, nutrition, and population variables, sensible policy must address the three concerns simultaneously. There is no moral or intellectual justification for attempts to slow progress in health as a way of dealing with population pressures. Technology development and transfer must proceed with caution, balancing hazards with potential benefits. The medical and nutritional choices made in industrialized countries may be unfortunate and should not be adopted indiscriminately by developing nations. Particular attention should be directed to the central role of women in most cultures when dealing with health, nutrition, and reproductive concerns. Planning for the future must also address foreseeable shifts in the age composition of a population. Finally, a sensible program development may include a limited number of efficacious and efficient health services, as well as the provision of family planning services. (AU)

246 **Wood, C.,** 1982, "The political economy of infant mortality in Sao Paulo, Brazil," International Journal of Health Services, Vol. 12, No. 2, pp. 215-227.

After the military took power in Brazil in 1964, the government adopted a wide range of policies designed to stimulate economic growth. A central aspect of the Brazilian model of development was the control of wages. From 1964 to 1975, this strategy caused the purchasing power of the minimum wage in the city of Sao Paulo to fall. The decline in the real wage index was associated with a rise in infant mortality during the period. When real wages rose after 1974, the death rate dropped off. The infant mortality trend cannot be explained by other factors that affect the actual or the reported death rate, such as changes in cityward migration, shifts in the distribution of income, and improvements in the quality of vital statistics. The findings of this study indicate a causal relationship between the infant mortality trend and changes in the purchasing power of the urban poor. Additional data on nutrition, changes in household behaviour, and shifts in the cause structure of mortality support this conclusion. (AU)

247 **Wood, H.,** 1981, "Mortality in three departments of Colombia: a preliminary assessment," Social Science and Medicine, Part D: Medical Geography, Oxford/Elmsford, N.Y., Vol. 15D, No. 4, November, pp. 439-447.

An analysis of published data on causes of mortality for six age groups in the Departments of Caldas, Quindio and Risaralda, Colombia, shows that prior to age 45 most deaths are from causes susceptible to public health programs. However, improvements in sanitation and in the control of infectious disease will be beneficial mainly to children and the elderly. To reduce the high death rate among young adults, social and economic measures are needed. Shortages of medical personnel are reflected in a high proportion of deaths without prior medical attention and also in inaccurate recording of causes of death. Social security improvements help those who are covered but have a negative effect on those outside the system. (PI)

248 **World Health Organization (WHO),** 1981, "Summary of the ad hoc survey on infant and early childhood mortality in Sierra Leone," World Health Statistics Quarterly, Vol. 34, No. 4, pp. 220-238.

An analysis of data obtained from a survey of the demographic, biological, and environmental factors that affect the health status of mothers and children and the mortality of children in Sierra Leone is presented. The survey, conducted in 1974 and 1975 in the Western Area, covered some 3,229 households containing approximately 15,000 persons. Sections are included on demographic and environmental characteristics; fertility levels, patterns, and differentials, morbidity, mortality, and child care. (PI)

249 **World Health Organization,** 1980a, "The inequality of death: assessing socioeconomic influences in mortality," WHO Chronicle, Vol. 34, No. 1, January, pp. 1-15.

This article describes efforts to study the differentials in mortality associated with socioeconomic status, and some of the difficulties and pitfalls encountered in such statistical studies. (PI)

250 **World Health Organization,** 1980b, Towards a better future: maternal and child health, Geneva, WHO, 42 pp.

This book briefly examines the causes of maternal, infant, and child mortality and morbidity and discusses the different kinds of risk that might be expected to yield to more effective intervention. (PI)

251 **World Health Organization,** 1979, Proceedings of the meeting on socioeconomic determinants and consequences of mortality, Geneva, WHO, 622 pp.

The meeting on the socioeconomic determinants and consequences of mortality held in Mexico City 19-25 June 1979 was organized by the United Nations and the World Health Organization with the participation of various international agencies; contains the various documents presented at this meeting dealing with subjects such as the socioeconomic determinants of mortality, measurement of differentials, relationships with public health, government policy and development, and guideliines for research in this area. (MF)

252 **Yang, S.,** 1981, "Stages of demographic transition and mortality declines in developing countries," with B.F. Pendleton, Paper presented at the Population Association of America 1981 meeting, Washington, D.C.

Given the observation that mortality declines in LDCs have not been associated with social and economic factors because of the diffusion of health and medical techniques in LDCs (imported from MDCs) the authors examine the relationship between socioeconomic development and mortality decline at different transition stages (for early and late transitions - via a path model linking socioeconomic variables and mortality). Findings: the network of social and economic variables and their effect on mortality is more significant in late transition countries than in early transition countries. The implication is that the degree of strength and the composition of the relationship between socioeconomic development and mortality declines depend greatly upon how transitionally "mature" a nation is. (AU)

253 **Yang, S., and Pendleton, B.,** 1980 "Socioeconomic development and mortality levels in less developed countries," Social Biology, Vol. 27, No. 3, pp. 220-229.

Some demographers have argued that post-World War II mortality declines in the less developed countries (LDCs) are not associated with economic and social development because of the diffusion of health and medical techniques from the developed to the underdeveloped countries. This paper examines the current relationship between socioeconomic development and mortality levels in 124 countries, 94 of which are LDCs. The argument is tested with a path model consisting of five multidimensional and three unidimensional indicators. Results indicate that for the LDCs, there is a very strong set of direct and indirect relationships between indicators of socioeconomic development and mortality. Between 62 and 80% of the variances in the crude death rate, infant mortality, and life expectancy are explained in the LDC model. The empirical test of the model demonstrates that lower mortality levels in the LDCs are dependent on socioeconomic factors and health services; continued improvement of socioeconomic levels in the LDCs will result in further mortality declines. For comparative purposes, the same model also is tested for more developed countries. Results for the model with more developed countries (MDCs) show that entirely different measures are necessary for MDC mortality models; the concept of "mortality" for LDCs and MDCs is orthogonal and requires different empirical indicators. (AU)

254 **Young, F., Edmonston, B., and Andes, N.,** 1982, "Community-level determinants of infant and child mortality in Peru," Cornell University, May, unpaginated.

A technique is proposed for calculating community-level sex-specific infant and child mortality on the basis of household data collected by the World Fertility Survey. These estimates then serve as dependent variables for a multivariate analysis of 84 Peruvian communities of less than 25,000 population. This analysis is guided by a quasitheoretical strategy that puts three classes of variables in competition: physical ecology, program interventions, and social structure. The representative of the first category, altitude, was significantly associated with male and female child mortality when the other independent variables were controlled. However, this result contradicted the physical theory that is available. The correlation is probably better interpreted as an indirect effect of social organization in the sierra. The representative variable in the second category, number of medical institutions, was unrelated to any of the four dependent variables. All three of the indicators of the social organization - community, population size, proportion of educated women, and proportion speaking Spanish - were negatively associated with the dependent variables as expected. In the multivariate analysis, only female education continued to be a consistent negative predictor. However, there is reason to believe that population size and capacity to speak the national language would be predictors with a larger sample.

The paper concludes with a preliminary analysis of these communities having significantly higher or lower mortality rates than would have been expected on the basis of a knowledge of Spanish, education, community size, and local medical facilities. Such deviant case analysis may pinpoint "problem communities" or, alternatively, communities with special advantages. This methodology and the findings that it generates may contribute to national efforts to improve communities or, additionally, it may help local communities to help themselves. (AU)

255 **Yuñes, J.**, 1980, "Evolução da mortalidade infantil e infantilproporcional no Brasil", presentado en: Segundo Encontro Nacional de Estudos Populacionais, 2o., Aguas de São Pedro, 13-17 octubre, 9 pp.

El comportamiento de la mortalidad infantil (MI) en Brasil en el período 1968-1977 se analiza junto con algunos factores que se consideran asociados a ella, con el fin de explicar el aumento experimentado por la tasa de MI en dicho período. Los datos que corresponden a las capitales de Estado, ya que no se dispone de información global, indican que la tasa de MI aumentó de 87.8 por mil en 1969 a 103.5 en 1973 (p. 2); la proporción de muertes menores de un año subió de 25% a 31.4% entre 1966 y 1975 (p.3). Entre los factores condicionantes están la creciente desigualdad en la distribución del ingreso, la disminución de la libertad de acción del Ministerio de Salud, el cambio en la estructura de los gastos de salud, que ha restado importancia a la atención materno-infantil; respecto a los programas de salud, en general no se puede decir que sus condiciones hayan desmejorado en este período, por lo que se considera que deben haber pesado más los factores extrasectoriales, como ingreso, educación y alimentación. (DOCPAL)

256 **Zlotnik, H., and Hill, K.**, 1981, "The use of hypothetical cohorts in estimating demographic

parameters under conditions of changing fertility and mortality," Demography, Vol. 18, No. 1, Feb., pp. 103-122.

The indirect methods of demogrphic estimation available to date are often inadequate to estimate levels in the presence of trends. The use of measures relative to hypothetical cohorts to minimize the effects of trends and estimate period levels is described. Procedures allowing the estimation of intersurvey levels of fertility, child mortality and adult mortality, are illustrated using data from Thailand and Peru. (AU)

SUBJECT INDEX

Access to Health Services:

Antonovsky 1980; Behm 1979a,c; Behm and Primante 1978; Brandel 1980; Breilh 1979a; Breilh and Granda 1982; Caldwell 1979; Caldwell and McDonald 1981; Campos 1979; Capote and Villar 1980; Chanfreau 1979; Chen et al 1981b; Chossudovsky 1979; Cordeiro 1979; Diaz-Briquets 1981; Escudero 1981; Fildes 1980; Frenzen and Hogan 1982; Frerichs et al 1979; Gaona de Godoy and Miranda 1981; Gish 1979; Grosse 1980; Guttmacher and Danielson 1977; Gwatkin et al 1980a, 1980b; Medina and Kaempffer 1979; Meegama 1981, 1980; Merrick and Graham 1979; Monteiro et al 1980; Mosley 1980; Nag 1981; Oyarzo 1983; Patel 1980; Raczynski 1982; Raczynski and Oyarzo 1981; Ramos 1981; Ratcliffe 1978; Ruzicka and Hansluwka 1982; Taucher 1981, 1979; Vetter and Simoes 1981.

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Farren 1978; Fundação SEADE 1980; Gaisie 1979; Guerra 1979; Martin de Rover et al 1980; Méndez and Banguero 1979; Newland 1981; Ortiz 1980a,b; Palloni 1981a,b, 1979a; Panama 1979; Preston 1980; Riverón et al 1981; Smucker et al 1980; Sosa 1980; Taucher 1981, 1979; Teller et al 1979b; United Nations 1982a; Université Catholique de Louvain et al 1981; Williamson 1982; Wood, C., 1982; Wood, H., 1981; World Health Organization 1980b.

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Brouard et al 1981; Meslé et al 1980; Preston 1982; Segal and Winikoff 1980; Teller et al 1980; Université Catholique de Louvain et al 1980; World Health Organization 1979.

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Eblen 1982; Escudero 1980, 1978; Fundação de Informaçao 1981; Gaisie 1979; Méndez and Banguero 1979; Organization for Economic Co-operation and Development 1980; Somoza 1980; Sullivan et al 1982; Tabutin 1981; United States Bureau of the Census 1978.

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Dominican Republic: Behm and Primante 1978; Cáceres 1980; Chackiel 1981b.

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Post-Neonatal:

Adamchak and Flint 1980; Arriaga 1980; Hobcraft et al 1982; Taucher 1979.

Primary Health Care:

Bennet 1979; Breilh 1979a; Gish 1979; González, et al 1980; Gwatkin et al 1980b; Habicht and Behrman 1980; Joseph 1980; Joseph et al 1980; Mendoza et al 1979; Walsh and Warren 1980; Williamson 1982.

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Antonovsky 1980; Barnum et al 1980; Carvalho and Wood 1978; Grosse and Harkavy 1980; Monteiro 1982; Nag 1981; Nelson and Johnson 1982; Ratcliffe 1978; Rodgers 1979; Wood 1982; WHO 1980a; Yuñes 1980.

Rising Infant Mortality:

Accinelli and Muller 1980; Davis and Feshback 1980; Monteiro 1982; Newland 1981; Sawyer 1981; Wood 1982; Yuñes 1980.

Sex Differentials:

Chen et al 1980b; Chowdhury 1981; D'Souza and Chen 1980; Tabutin 1977.

Social Class:

Behm 1979b; Carvalho and Sawyer 1979; Carvalho and Wood 1978; Cordeiro 1979; Frenzen and Hogan 1982; Jiménez and Minujín 1982; Sawyer 1980.

Socio-Economic Determinants:

Baldión 1981; Behm 1982, 1981, 1979b,c; Behm and Primante 1978; Berrebi and Silber 1981; Bourgeois-Pichat 1979; Brouard et al 1981; Burke et al 1979; Butz et al 1982, 1981; Cabrera 1980; Chowdhury 1981; Diaz-Briquets 1981; D'Souza 1981; Elizaga 1979; Gaisie 1979; Gortmaker 1979; Guerra 1981; Hobcraft et al 1982; McCormick et al 1979; Meegama 1980; Mosley 1980; Müller 1981; Orihuela 1981; Paim et al 1980; Pereira 1980; Ramos 1981; Rodgers 1979; Ruzicka and Hansluwka 1982; Schultz 1979; Taucher 1981, 1979; Torrez 1980; Wenlock 1979; Winikoff and Brown 1980; Wood 1982; World Health Organization 1981, 1979; Yang 1981; Yang and Pendleton 1980; Yuñes 1980.

Socio-Economic Development and Infant Mortality/Health:

Adamchak and Flint 1980; Arriaga 1981a; Berrebi and

Silber 1981; Boulanger and Tabutin 1980; Brandel 1980; Breilh 1979a; Breilh and Granda 1982; Carvalho and Sawyer 1979; Chossudovsky 1979; Cochrane et al 1980; Cuba 1981; Delgado and Hurtado 1979; Dellaportas 1982; González et al 1980; Grosse and Harkavy 1980; Gwatkin et al 1980b; Joseph et al 1980; Knowles 1980; Laurell 1981; Laurell et al 1977; Marcotti 1981; Meegama 1981, 1980; Molina 1979; Monteiro 1982; Morris 1979; Nag 1981; Nelson and Johnson 1982; Newland 1981; Palloni 1981a,b, 1979a; Pérez 1979; Preston 1980, 1978; Sawyer 1981; Sivamurthy 1981; Solimano 1979; Solimano and Hakim 1979; Solimano and Vine 1982; Victoria and Blank 1980; Williamson 1982; Wood 1982.

Surveys (as a data source for infant mortality studies):

Arriaga 1979; Behm 1979c; Pérez 1980; Peru 1980; Somoza 1979; Sullivan et al 1982; Tabutin 1981.

Water (Sanitation):

Grosse 1980; Haines and Avery 1982; Meegama 1981; Merrick 1981; Monteiro 1982; Mosley 1980; Nelson and Johnson 1982; Paim et al 1980; Patel 1980; Vetter and Simões 1981; Victoria and Blank 1980.

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Africa:

Azefor 1981; Bucht and Chamie 1982; Caldwell 1979; Eblen 1982; Farah and Preston 1982; Gaisie 1979; United Nations 1982a; Wenlock 1979.

Asia (except where country specified):

Arriaga 1979; Bannister and Preston 1981; Bucht and Chamie 1982; Butz et al 1982, 1981; Frenzen and Hogan 1982; Nelson and Johnson 1982; Rosenzweig and Schultz 1981; Sivamurthy 1981; Smucker et al 1980; United Nations 1982a; Williamson 1982.

Bangladesh:

Chen et al 1981a,b, 1980a,b,c; D'Souza and Chen 1980; Ewbank 1982.

Kerala:

Nag 1981; Ratcliffe 1978.

Sri Lanka:

Meegama 1981, 1980; Patel 1980; Trussel and Preston 1981.

Latin America (General):

Arriaga 1982, 1981a,b, 1980; Baum and Arriaga 1981; Behm 1979a; Behm and Primante 1979, 1978; Palloni 1981a,b, 1979b; Teller et al 1979a,b; United Nations 1982a.

Argentina:

Accinelli and Muller 1980; Behm and Primante 1978; Escudero 1981; Martin de Rover et al 1980; Müller 1981.

Bolivia:

Behm and Primante 1978; Dutt 1980; Frerichs et al 1979; Pereira 1980; Torrez 1980.

Brazil:

Carvalho and Sawyer 1979; Carvalho and Wood 1978; Cordeiro 1979; Ferreira 1980; Fundação SEADE 1980; Giraldelli 1980; Goldberg and Anderson 1982; González et al 1980; Hill and Zlotnik 1982; Laurenti et al 1977; Merrick 1981; Merrick and Graham 1979; Monteiro 1982, 1981, 1980; Monteiro et al 1980; de Motta Leite 1980; Ortiz 1980a,b; Paim et al 1980; Sawyer 1981, 1980; United States National Academy of Science 1979; Vetter and Simões 1981; Victoria and Blank 1980; Wood 1982; Yuñes 1980.

Chile:

Arriaga 1981b; Behm and Primante 1978; Cabrera 1980; Chanfreau 1979; González 1980; González et al 1980; Marcotti 1981; McCormick et al 1979; Medina and Kaempffer 1979; Monckeberg and Riumalló 1979; Orellana 1981, 1980; Oyarzo 1983; Raczynski 1982; Raczynski and Oyarzo 1981; Rodriguez 1979; Solimano 1979; Solimano and Hakim 1979; Solimano and Vine 1982; Taucher 1982a,b, 1981, 1979.

Colombia:

Baldión 1981; Banguero 1979; Bayona 1980; Bayona and Ruiz 1982; Behm and Primante 1978; Chackiel 1982b, 1981; Hill and Zlotnik 1982; Olsen 1980; Palloni 1979b; Rosenzweig and Schultz 1981; Schultz 1979; Somoza 1980.

Costa Rica:

Arriaga 1981b; Behm and Primante 1978; Chackiel

1982, 1981b; González 1980; Haines and Avery 1982; Pérez 1979; Sosa 1980, 1979; Taucher 1982a,b; Teller et al 1979b.

Cuba:

Capote and Villar 1980; Catasus 1981; Cuba 1981, 1980; Cuba et al 1980; Diaz-Briquets 1981; González 1980; Guttmacher et al 1977; Mundigo 1979; Pérez 1980; Riverán et al 1981.

Dominican Republic:

Behm and Primante 1978; Cáceres 1980; Chackiel 1982, 1981b; Mendoza et al 1979.

Ecuador:

Behm and Primante 1978; Breilh et al 1982.

El Salvador:

Behm and Primante 1978; Palloni 1979b.

Guatemala:

Arriaga 1981b; Behm and Primante 1978; Clark 1981; Del Pinal 1981; Haines et al 1981; Martorell et al 1981; Pebley et al 1979; Teller et al 1979b.

Honduras:

De la Loza 1980.

Mexico:

Arriaga 1981b; Corona et al 1982; De la Loza 1980; Jiménez and Minujín 1982; Laurell et al 1977; Mina 1981; Taucher 1982a,b.

Nicaragua:

Behm and Primante 1978.

Panama:

Arriaga 1981b; Chackiel 1982, 1981b; Guerra 1981, 1980, 1979; Medica and Chackiel 1981; Panamá 1979; Teller et al 1979b.

Paraguay:

Behm and Primante 1978; Gaona de Godoy and Miranda 1981; Taucher 1982a,b.

Peru:

Behm and Primante 1978; Chackiel 1982, 1981b; Edmonston and Andes 1982; Hobbs and Arriaga 1982; Orihuela 1980; Peru 1980; Ramos 1981; Taucher 1982a,b; Young et al 1982.

Uruguay:

Damonte 1980; Farren 1978.

North America (USA):

Gortmaker 1979.

USSR:

Davis and Feshback 1980.

International/Global:

Boulanger and Tabutin 1980; Bucht and Chamie 1982; Dyson 1977; Gwatkin 1980a; Organization for Economic Co-operation and Development 1980; United Nations 1982a; Vallin 1977; Yang 1981; Yang and Pendleton 1980.